Airspace Change Proposal ACP-2021-002

Summary of Stakeholder Engagement and Final Proposal

Skylift UAV Limited
Version 1.0
27/04/2021

1. Introduction

The following Statement of Need was published by Skylift UAV Limited for ACP-2021-002:

Skylift UAV Limited are undertaking a 12-week[1] trial on behalf of Portsmouth Hospitals University NHS Trust and Isle of Wight NHS Trust to transport packages containing chemotherapy drugs between Queen Alexandra Hospital in Portsmouth and St Mary's Hospital in Newport, Isle of Wight, using unmanned aircraft.

COVID-19 is directly disrupting the ability of Isle of Wight NHS Trust to procure chemotherapy for its cancer patients. As the Trust does not have a Pharmacy Manufacturing Unit (PMU) of its own, it is wholly dependent on Portsmouth Hospitals University NHS Trust for the supply of chemotherapy. Chemotherapy drugs have a short shelf-life (8-24 hours) and since there is a (pre-COVID-19) 3 to 4-hour travel time between the hospitals (2 taxis and a ferry), the chemotherapy must be manufactured before it can be confirmed that the patient is able to attend or receive the treatment. COVID-19 is negatively impacting this issue as it is causing disruption to the ferry companies, who have lost revenue and staff due to illness and furlough, through suspensions, cancellations, delays and changing timetables. This is making it difficult for St Mary's Hospital to organise chemotherapy deliveries and has consequently made chemotherapy sessions challenging to coordinate. The current cut-off time for Isle of Wight NHS Trust placing an order for chemotherapy is noon the day before the patient is due to receive the treatment. This is a fixed cut-off as Portsmouth PMU manufactures over 50,000 doses per month and so it cannot be brought forward. This presents a large time-period between the manufacture of the chemotherapy and the patient receiving it, during which patients are clinically assessed and a significant proportion are found to be unable to receive the treatment. This means that the treatment has already been prepared when the patient is found to be clinically unable to receive it, leading to wastage of compounds which can cost many thousands of pounds per dose. Importantly, if a patient misses a session, it is harder to organise a future session even though there is a greater clinical imperative to provide chemotherapy after a missed session. Additionally, valuable staff time is spent attempting to call Portsmouth PMU in the hope that an order may be cancelled, as well as calling taxis and ferries to reorganise deliveries, when that time could be spent on providing clinical care. This is during a pandemic when staff time has only become more valuable. Moreover, some cancer patients are having to travel across the Solent to Portsmouth to receive treatment. Increased ferry waiting periods in adverse weather conditions make the trip more arduous during a time when the island is one of the worst hit areas in the country for COVID-19. In the seven days up to 3rd January 2021, data showed a rolling rate of 1,654.3 cases per 100,000 for the east side of the island, with 156 cases. As a result, there has been consideration for the Portsmouth PMU to extend its working hours.

[1] Note that the original Statement of Need referred to a 4-week trial. However, as per section 4 of this document, a request was made by the NHS to extend the trial period to 12 weeks.

Reducing the delivery time to a 32-minute direct flight between the two hospitals would be transformative, as the chemotherapy could be manufactured once the patient is confirmed to be present and able to receive treatment, before the drugs are then delivered on-demand. This would make chemotherapy delivery reliable and so enable Isle of Wight NHS Trust to organise and re-organise sessions more readily. Additionally, by reducing the delivery time, the cut-off time for placing an order is pushed forward, thereby reducing both chemotherapy waste and staff time spent on non-clinical care. Moreover, using an unmanned aircraft can eliminate unnecessary patient and staff travel that would otherwise put vulnerable individuals and NHS staff at risk during the pandemic. As recent research has shown that the coronavirus can survive for up to 72 hours on common clothing, including three of the most commonly used textiles in healthcare, it is paramount that unnecessary travel is reduced. By flying on-demand, costs can also be reduced as chemotherapy is saved from being wasted, taxis/ferries are bypassed and Portsmouth PMU's working hours need not be extended. Furthermore, a comparison will be made between the delivery methods to establish the benefit of drones to the environment.

Faster, on-demand delivery of chemotherapy to St Mary's Hospital would respond to the Isle of Wight NHS Trust's call for help to mitigate the impacts of COVID-19 on its cancer patients. In addition, there are other time-sensitive items, such as COVID-19 swabs and blood tests, vaccines, personal protective equipment, test kits, testing reagents, tracheostomy tubes, stroke kits, blood units and convalescent plasma that could be transported between the two hospitals via unmanned aircraft. To these ends, beyond visual line of sight unmanned aircraft operations will be required and, in accordance with CAP 1915, such operations must be conducted within segregated airspace. CAP 1915 states that the primary method for achieving this airspace is by application for a Temporary Danger Area (TDA). Skylift UAV Limited therefore requests the establishment of a TDA to segregate their operations accordingly.

At the ACP assessment meeting, the CAA airspace regulation team noted that it would be important to make clear the driver and requirement for the TDA in this instance. It was noted that a previous TDA had been established in this area to demonstrate unmanned aircraft (UA) use in support of the COVID-19 response by transporting medical-related material. It would be important to understand if/how this was different and why its duration and implementation date would satisfy this driver compared to moving forward with a Permanent Change. The driver for the TDA under this ACP is still COVID-19. The previous trial in 2020, using a UA between Lee-On-Solent and Binstead Airfield, did not completely prove the case for using UA. While transport time between the airfields was quick, transport time between the airfields and the hospitals at either end was still an issue. The Skylift UAV trial is distinct from the 2020 trial as it has the aim of establishing if flying UA directly between the hospitals does provide appropriate time and cost savings.

This document explains the rationale for selecting stakeholders, details the engagement methodology and duration, and lists the targeted stakeholders with a summary of their responses. The evidence of the engagement activity is included along with an analysis of the responses, showing how feedback has influenced the final proposal. This document also sets out how Skylift UAV Limited will collate, monitor and report on the level and content of related complaints and feedback once the TDAs have been implemented. In conclusion, the final design proposal is laid out.

2. Rationale for selecting stakeholders

Annex A to the CAA Policy for the Establishment of Permanent and Temporary Danger Areas, dated 21/07/2020, requires targeted engagement with aviation stakeholders.

Following the airspace change process assessment meeting on 15/03/2021, the CAA provided Skylift UAV with the National Air Traffic Management Advisory Committee (NATMAC) distribution list as a

suggested starting point of aviation stakeholders to engage. Skylift UAV chose to engage with the organisations most likely to be affected by the proposed TDAs, such as those related to general aviation, rather than those related to airlines who would not be affected by the TDAs. In addition, six local aerodromes were selected due to their proximity to the TDAs. A full list of stakeholders can be found in section 5 below.

3. Engagement methodology

Skylift UAV knew that, in accordance with CAP 1915, TDAs would be required to establish segregated airspace for their intended operation. To that end, Skylift UAV engaged with the local aviation stakeholders that they envisaged would be affected by their flying operation (see section 2 above) through both e-mail and phone calls. The flying operations were discussed in detail and appropriate deconfliction strategies were agreed where necessary.

Skylift UAV sent selected stakeholders, by e-mail where possible, the engagement material as per section 6.1 below. Where e-mail addresses were not available, phone calls were made, and attempts to obtain e-mail addresses were made so that the engagement material could be sent on.

The engagement material was also uploaded to the CAA Airspace Change Portal so that any potential stakeholders that were missed had the opportunity to make their views known.

4. Engagement duration

All initially identified stakeholders were e-mailed on 19/03/2021 and were asked to provide responses by 1700 hours on 16/04/2021, allowing 4 weeks to give feedback. Skylift UAV asked all stakeholders to note that the normal engagement period of 6 weeks had been shortened to 4 weeks due to the call for help from Isle of Wight NHS Trust to mitigate the impacts of COVID-19 on its cancer patients.

A CAA Flight Operations Training Inspector kindly identified further potentially affected stakeholders and they were e-mailed on 26/03/2021.

During the engagement period, Skylift UAV were requested by the NHS to extend the trial from 4 weeks to the 90 days permitted for a temporary airspace arrangement. An update e-mail, as per section 6.1 below, was therefore sent out to all stakeholders on 01/04/2021. Consideration was given to delaying the engagement period deadline but to do so would have meant missing the Aeronautical Information Circular publishing schedule date of 21/05/2021, which would have pushed the planned implementation date of 01/07/2021 back at least a month.

5. List of targeted stakeholders and summary of responses

Table 1 provides a list of all stakeholders that were contacted, whether they responded, and whether their response resulted in a design change. For clarity, those stakeholders that responded have been highlighted in the table.

Table 1: Targeted Stakeholders

Stakeholder	Response received	Resulted in design change?
Association of Remotely Piloted Aircraft Systems UK	N	N/A
Baker Barracks, Thorney Island (Ministry of Defence)	Y	Y
Bembridge Airport	N	N/A
Chichester/Goodwood Airport	N	N/A
Chichester and District Model Aero Club	Y	N
Fleetlands Heliport	Y	Y

General Aviation Alliance	N	N/A
Hampshire and Isle of Wight Air Ambulance	Y	N
Heliair (pipeline patrol)	N	N/A
Helicentre (pipeline patrol)	N	N/A
HM Coastguard, Solent Airport	Y	N
Isle of Wight Airport Sandown	Y	N
Ministry of Defence - Defence Airspace and Air Traffic Management	Y	Y
National Grid Electricity Transmission UK	Y	N
National Police Air Service	Y	N
PDG Helicopters (Railtrack survey)	N	N/A
RSPB Langstone Harbour	N	N/A
Solent Airport	N	N/A
Southampton Airport	Y	Y
Specialist Aviation Services (Children's Air Ambulance)	N	N/A

An e-mail address was not available for Bembridge Airport, and it was also closed due to the Coronavirus pandemic until 29/03/2021. A call was made to the advertised telephone line for the airport on 30/03/2021 and a message was left on the answering machine, but no response was received.

Engagement material was sent directly to Fleetlands Heliport, but they chose to respond via Ministry of Defence - Defence Airspace and Air Traffic Management (MoD DAATM). Their response was therefore included in the wider response provided by MoD DAATM.

While the proposed route for this ACP overflies the Langstone Harbour bird sanctuary, it was not clear to Skylift UAV whether the proposed TDA could be put in place from the surface and inside the boundary of the avoidance. The CAA Airspace Regulation Team investigated this issue and could find nothing to prevent the implementation of the TDA as proposed. However, given what Skylift UAV are trying to achieve, the CAA thought it appropriate for Skylift UAV to engage with the bird sanctuary and the CAA would then consider the proposed route alongside the feedback from the other stakeholders, including the bird sanctuary. To that end, Skylift UAV e-mailed RSPB Langstone Harbour on 25/03/2021. While no reply was received from RSPB Langstone Harbour, Natural England were engaged via the stakeholder engagement with Baker Barracks, Thorney Island, and provided feedback from an ecological point of view for the Langstone Harbour area within their overall response.

Additional feedback was received from the following stakeholders:

- Pilot A (retired ATCO, current private pilot)
- Pilot B (British Microlight Aircraft Association's Airspace Team)
- British Microlight Aircraft Association
- Pilot C (GA/microlight pilot)
- Person D (private individual)
- Natural England
- Person E (private individual)
- Sky Surfing Club
- Thorney Island Microlight Club (TIMC)

Note that the responses from Natural England and TIMC resulted in design changes to the TDAs.

6. Evidence of engagement

6.1. Engagement material

The following is the text of the e-mail that was sent out to all stakeholders:

Dear Stakeholder

Skylift UAV Limited have been tasked by Isle of Wight NHS Trust to run a 4-week trial transporting chemotherapy drugs between Queen Alexandra Hospital in Portsmouth and St Mary's Hospital in Newport, Isle of Wight, using remotely piloted aircraft (RPA). This is in direct support of the NHS and UK Government response to the COVID-19 pandemic. The full Statement of Need for this project is available on the Civil Aviation Authority's Airspace Change Portal (link provided below). Once all the relevant approvals are in place, we plan to conduct a beyond visual line of sight flying operation between the above-mentioned sites. The CAA have determined that this project is in scope of the airspace change process and that a Temporary Danger Area (TDA) will be required for the route to segregate our operation. To that end, we are required to formally engage fellow airspace users who will potentially be affected by the proposed TDA. Details of the proposed TDA, subject to approval by the CAA, are attached, as is a feedback form. The Airspace Change Proposal reference is ACP-2021-002 and all documentation associated with this proposal is available via that link.

We wish to create minimal impact to the operations of other airspace users while avoiding overflight of inhabited areas where possible. We have endeavoured to propose a TDA split into three portions that are as small as possible to accommodate our flying operation and are "VFR-friendly". We will have a comprehensive communications system in place, which can automatically text, for example, ATDs and ETAs to anyone that requires that information, and we can also provide Pre-Flight Information for the TDA via a dedicated telephone number. In the event of the emergency services requiring access to the airspace within a TDA, they will be given priority over RPA traffic and we can collapse the TDA very quickly if necessary. Our RPA is equipped with ADS-B and a Mode S Transponder for electronic conspicuity. We will also GeoFence the RPA's Flight Volume (see CAP 1915 for more information regarding this term) so that the aircraft remains within the confines of the TDA. During the trial, the expected operating hours of the TDA will be five days per week, predominantly in daylight hours, and the TDA will be activated by NOTAM with at least 24 hours' notice. We anticipate 4 return flights per day during the week but there may be the occasional night flight or flight at the weekend. All flights will be as required by Isle of Wight NHS Trust to achieve the goals of the trial.

We would appreciate it therefore if you could review the proposed TDA, complete the attached feedback form and return it to admin@flyby.technology by 1700 hours on Friday 16th April 2021. (Please note that the normal engagement period of 6 weeks has been shortened to 4 weeks due to the call for help from Isle of Wight NHS Trust to mitigate the impacts of COVID-19 on its cancer patients.) If necessary, we are also happy to discuss our plans over the phone with you and minute the conversation. If you do wish to speak on the phone, please e-mail first so that we can arrange a mutually convenient date and time. For reasons of transparency, we must upload all feedback to the Airspace Change Portal. We will share feedback with the CAA in its original form, but published feedback will be redacted to remove personal details.

We really do appreciate your feedback on this proposal, and we would like to thank you in advance for taking the time to respond. However, if you do not feel that your organisation is affected by the proposed TDA then there is no need to respond. If we do not receive a response from you, we will assume that you have no objection to the Airspace Change Proposal as published.

Best regards

Attached to the e-mail was a blank feedback form, completed examples of which can be seen in Appendix A to this document.

Also attached were the proposed TDA designs:

Solent TDA A

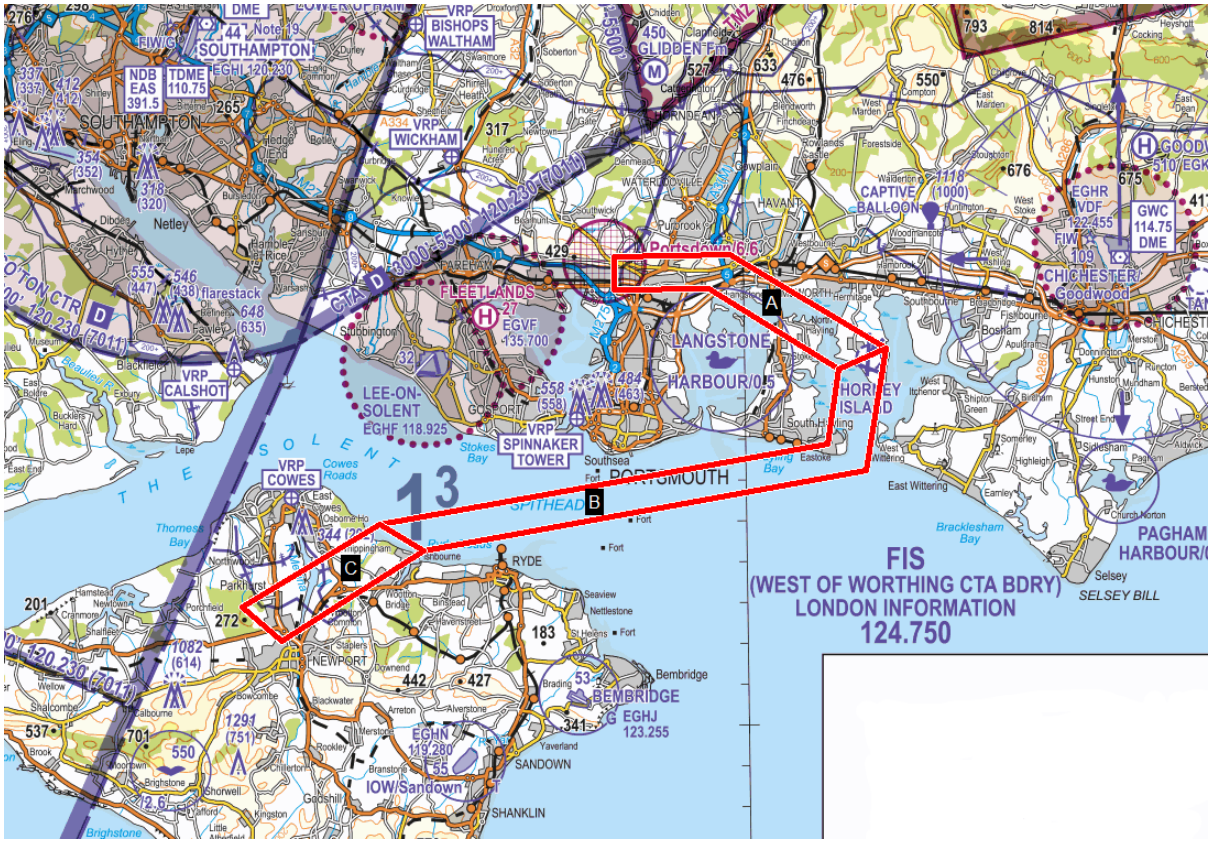
Lateral Limits	Vertical Limits
Area bounded by straight lines joining: 50°51'30"N 001°05'00"W 50°51'30"N 001°00'30"W 50°49'10"N 000°54'30"W 50°48'40"N 000°56'20"W 50°50'40"N 001°01'20"W 50°50'40"N 001°05'00"W to origin	Lower Limit: SFC Upper Limit: 850’ AMSL

Solent TDA B

Lateral Limits	Vertical Limits
Area bounded by straight lines joining: 50°49'10"N 000°54'30"W 50°46'10"N 000°55'20"W 50°44'20"N 001°12'30"W 50°45'00"N 001°14'10"W 50°46'50"N 000°56'50"W 50°48'40"N 000°56'20"W to origin	Lower Limit: SFC Upper Limit: 400’ AMSL

Solent TDA C

Lateral Limits	Vertical Limits
Area bounded by straight lines joining: 50°44'20"N 001°12'30"W 50°42'10"N 001°18'00"W 50°43'00"N 001°19'30"W 50°45'00"N 001°14'10"W to origin	Lower Limit: SFC Upper Limit: 750’ AMSL



The following is the text of the update e-mail that was sent out to all stakeholders:

Dear Stakeholder

Thank you to those of you who have kindly already provided feedback for ACP-2021-002. Again, we wish to create minimal impact to the operations of other airspace users. We have, however, since been asked by the NHS to extend our trial from 4 weeks to the 90 days permitted for a temporary airspace arrangement. This will give them the time necessary to gather the evidence required to determine the impact of unmanned aircraft transportation on patient outcomes. This update has been discussed with the CAA and the remaining details of the airspace change proposal are unchanged. We understand this may alter any response you have already sent to us and we apologise for this inconvenience. We would be happy to work with you to resolve any concerns you may have before the engagement period ends on 16th April 2021. We did consider delaying this deadline but to do so would mean we would miss the 21st May Aeronautical Information Circular publishing schedule dates, which would push the planned implementation date of 1st July back at least a month. We have updated the Airspace Change Portal and we have also uploaded the letter of support for this project from the Isle of Wight NHS Trust, for whom we hope you agree it is worth avoiding any such delay.

Thank you for your understanding,

Skylift UAV Limited

6.2. Summary of feedback

Skylift UAV received feedback from 10 of the targeted stakeholders. A further 9 stakeholders contacted Skylift UAV to provide feedback. Nine stakeholders were either supportive of the proposals

or had no objection to them. Seven stakeholders had no objection to the proposals if issues raised in their feedback could be addressed. Three stakeholders opposed the proposals.

The following points are of note:

- From a medical point of view, the original Statement of Need could have been clearer. Apian Ltd, Skylift UAV's business partner who are responsible for the service provision to the NHS and who helped to write the Statement of Need, welcomed the feedback from stakeholders, which they will take into account for future projects.
- The provision of a Danger Area Crossing Service (DACS) or Danger Area Activity Information Service (DAAIS) was raised by several stakeholders. Skylift UAV attempted to arrange a DACS/DAAIS with local Air Traffic Service Units without success and cannot provide such a service themselves. However, the RPA is equipped with a VHF radio and the remote pilots will hold a Flight Radiotelephony Operator's Licence (FRTOL), so the safety of the operation would be enhanced if the remote pilots could speak to other aircraft on the radio. Unfortunately, the CAA currently has no mechanism to allocate a call sign to RPA of the type operated by Skylift UAV. It is Skylift UAV's opinion, supported by stakeholder feedback, that this issue needs to be addressed by the CAA as a matter of urgency.
- The CAA Special Use Airspace - Safety Buffer Policy for Airspace Design Purposes resulted in Southampton Airport being initially unable to support the proposal. Although CAP 1915 requires the RPA operation to have a Contingency Volume and Emergency Buffer, which are contained entirely within the TDA, this was not deemed to provide suitable mitigation for dispensation from the Safety Buffer Policy. While Skylift UAV fully understand the current need for segregation of RPAS activities, they believe that the Safety Buffer Policy, which was written in 2014, needs to be updated to reflect current RPAS capabilities and the requirements of CAP 1915.

The full responses from all stakeholders are in Appendix A (see section 10 below).

7. Analysis of responses

Skylift UAV appreciate the feedback provided by stakeholders. Each response was analysed carefully to see if any change could or should be made to the proposed design.

Having proposed the TDAs as per section 6.1 above, Skylift UAV worked with the stakeholders operating from Thorney Island airstrip to ensure minimum impact on local flying operations. Although the operating site at Baker Barracks always meant that the proposed TDAs would sit over the airstrip, Skylift UAV, as the Danger Area Authority, can allow pre-arranged, deconflicted access to the TDAs. Following engagement with Baker Barracks MoD staff, Chichester and District Model Aero Club (CADMAC), the Defence Infrastructure Organisation, Natural England and TIMC, design changes were made to TDAs A and B as shown in the diagram below, creating TDAs A, B and C. The upper limit of the new TDA B was raised to 650 FT AMSL due to a required increase in RPA operating altitude to accommodate environmental constraints. The amended co-ordinates for TDAs A, B and C and associated vertical limits are in the Final Design Proposal in section 9 below. There was no need at this stage to make any changes to the original TDA C, other than rename it as TDA D.

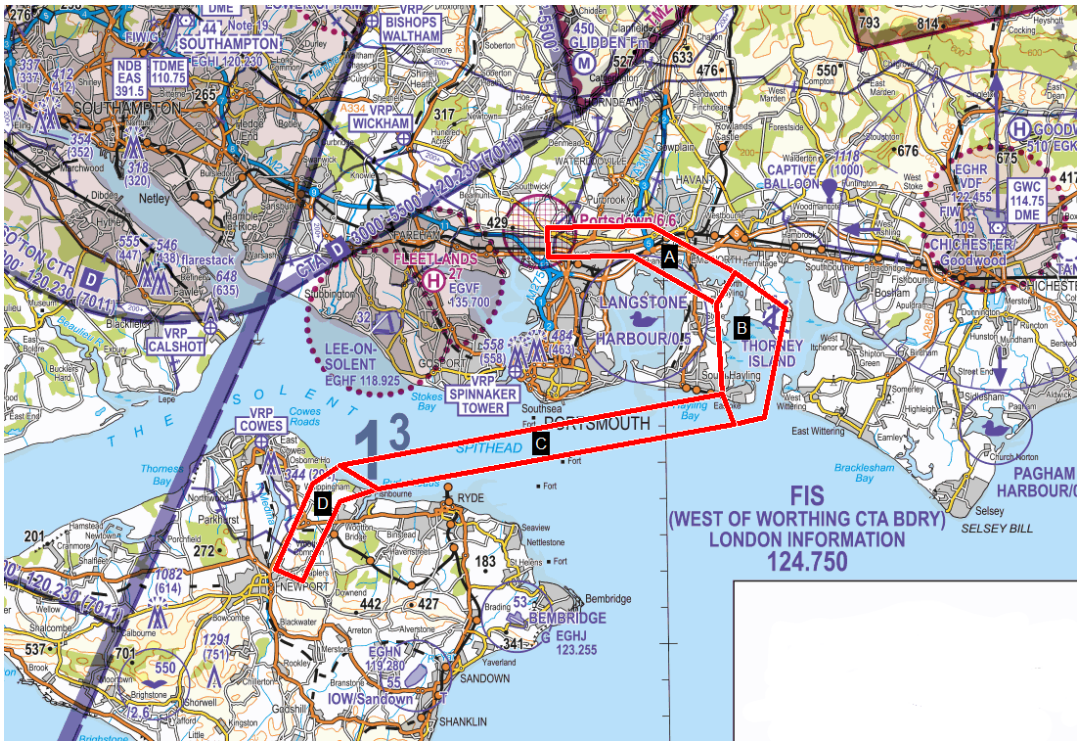
A letter of agreement has been drawn up between Skylift UAV Ltd and, jointly, CADMAC and TIMC to specify deconfliction procedures within the TDAs.

Feedback from Fleetlands Heliport via MoD DAATM resulted in Skylift UAV re-examining the upper limit of TDA A. It was decided by Skylift UAV that they were being overly cautious in using the 429 FT spot height to the west of TDA A and that, by careful examination of the terrain elevation on the RPA

route, they could justify reducing the upper limit of TDA A to 750 FT AMSL. This reduction in the upper limit of TDA A addresses similar concerns raised by other stakeholders.

Southampton Airport were initially unable to support the ACP as the original TDA C did not comply with the CAA Special Use Airspace - Safety Buffer Policy for Airspace Design Purposes. Although Skylift UAV were seeking to reach agreement with the airport for dispensation from this policy, Southampton Airport were unable to accommodate this request. To that end, TDA C, which had since been renamed as TDA D, was moved to the east, as shown in the diagram below, so that the TDA complied with the requirements of the Safety Buffer Policy. Southampton Airport had no issues with this redesign. The amended co-ordinates for TDA D and associated vertical limits are in the Final Design Proposal in section 9 below.

Skylift UAV will give priority to emergency services aircraft requiring access to active TDAs. While HM Coastguard and the National Police Air Service were content with the information that will be provided by the TDA activation NOTAM, Hampshire and Isle of Wight Air Ambulance required a more detailed arrangement. To that end, Skylift UAV were happy to draw up a letter of agreement with Babcock Onshore, the Air Ambulance operators, to specify deconfliction procedures within the TDAs.



8. Collation, monitoring and reporting on level and content of related complaints / feedback post-implementation

Prior to implementation, stakeholders that responded to the engagement process will be advised that they can make complaints or provide feedback during the first two months of operation of the TDA. All relevant complaints or feedback received by Skylift UAV will be reviewed and considered in relation to the RPA flying operation. At the end of the second month, Skylift UAV will provide a report to the CAA containing any complaints and feedback received.

9. Conclusion and final design proposal

Skylift UAV believe that the proposed final design below provides sufficient segregated airspace in which to safely conduct their RPA flying operations while imposing minimum impact on other airspace users. Skylift UAV will continue to work closely with stakeholders during the 3-month trial so that Skylift UAV can make a positive contribution to gathering the evidence required to determine the impact of UA transportation on patient outcomes while facilitating safe, deconflicted access to the segregated airspace for those stakeholders that need it.

Due to the upper limits of the proposed TDAs being below the altitude at which general aviation traffic operates, and the agreements with local airspace users at Thorney Island, Skylift UAV does not believe that this proposal is likely to affect the distribution of traffic patterns below 7000 FT.

Below is the final design proposal, which also constitutes the draft Aeronautical Information Circular.

Final Design Proposal

1. From 01/07/2021 through to 28/09/21, a Remotely Piloted Aircraft System (RPAS) will operate between Queen Alexandra Hospital in Portsmouth and St Mary's Hospital in Newport, Isle of Wight to carry out operational flights for the purpose of transporting essential medical goods between the healthcare sites in direct support of the NHS and UK Government response to the COVID-19 pandemic. As the RPAS will be operating Beyond Visual Line of Sight, a Temporary Danger Area (TDA) complex will be established to facilitate the safe operation of the RPAS.
2. The TDA complex is sponsored by Skylift UAV Limited in accordance with Airspace Change reference ACP-2021-002.
3. The TDA complex will consist of 4 Danger Areas to facilitate the route between the healthcare sites. A chart of the area is included within this Aeronautical Information Circular.
4. Only the Danger Areas required for each flight or series of flights will be activated to minimise impact to other air users.
5. The required TDAs will be notified for activation no less than 24 hours prior to the planned flights.

REQUIRED TEMPORARY DANGER AREAS WILL BE NOTIFIED BY NOTAM

6. EG DxxxA. When required from 01/07/2021 through to 28/09/21, a Temporary Danger Area is established within the area bounded by straight lines joining successively the following points –
   a. 50°51'30"N 001°05'00"W
   b. 50°51'30"N 001°00'30"W
   c. 50°50'10"N 000°56'50"W
   d. 50°49'20"N 000°57'40"W
   e. 50°50'40"N 001°01'20"W
   f. 50°50'40"N 001°05'00"W
7. Within EG DxxxA, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.
8. The Temporary Danger Area EG DxxxA is established between Surface and 750 FT AMSL.
9. EG DxxxB. When required from 01/07/2021 through to 28/09/21, a Temporary Danger Area is established within the area bounded by straight lines joining successively the following points –
   a. 50°50'10"N 000°56'50"W
   b. 50°49'10"N 000°54'40"W

c. 50°46'10"N 000°55'40"W
d. 50°46'00"N 000°57'00"W
e. 50°46'50"N 000°57'30"W
f. 50°49'20"N 000°57'40"W

10. Within EG DxxxB, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.
11. The Temporary Danger Area EG DxxxB is established between Surface and 650 FT AMSL.
12. EG DxxxC. When required from 01/07/2021 through to 28/09/21, a Temporary Danger Area is established within the area bounded by straight lines joining successively the following points –
    a. 50°46'00"N 000°57'00"W
    b. 50°44'20"N 001°12'30"W
    c. 50°45'00"N 001°14'10"W
    d. 50°46'50"N 000°57'30"W
13. Within EG DxxxC, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.
14. The Temporary Danger Area EG DxxxC is established between Surface and 400 FT AMSL.
15. EG DxxxD. When required from 01/07/2021 through to 28/09/21, a Temporary Danger Area is established within the area bounded by straight lines joining successively the following points –
    a. 50°44'20"N 001°12'30"W
    b. 50°44'00"N 001°14'10"W
    c. 50°41'50"N 001°15'50"W
    d. 50°42'10"N 001°17'00"W
    e. 50°44'30"N 001°15'20"W
    f. 50°45'00"N 001°14'10"W
16. Within EG DxxxD, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.
17. The Temporary Danger Area EG DxxxD is established between Surface and 750 FT AMSL.
18. Further enquiries can be made to Airspace Regulation (Utilisation), Safety and Airspace Regulation Group, Civil Aviation Authority on telephone number 01293 983880.

<TDA EG DxxxA, TDA EG DxxxB, TDA EG DxxxC and TDA EG DxxxD to be charted by NATS>

10. Appendix A – Stakeholder Responses

Pilot A

Name	[redacted]
Job Title / Role	Retired ATCO / Current Private Pilot
Company / Organisation	Nil
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

Whilst the proposal appears to provide a telephone based DAAIS (Danger Area Information Service), there does not appear to be any provision of a real time DACS (Danger Area Crossing Service).

This is particularly important given the proposed areas of operation which are amongst the busiest for both maritime and aviation operations.

The Solent is not only a congested waterway, it is also very busy with air traffic routing from the mainland to the Isle of Wight, traffic routing along the south coast of the mainland and traffic operating in The Solent itself.

This air traffic consists of General Aviation, Military Aviation (normally rotorary winged) and Emergency Services Aviation. All of these operations should have full and equitable access to the proposed airspace which would usually be provided by means of a DACS.

DACS by telephone is not practicable for flights that are already airborne, and may require access to the proposed TDAs at short notice. The usual method of provision would be through VHF Radio, and yet the proposal does not mention this.

NOTAM activation is a blunt instrument and inevitably blocks the airspace for longer than actually required. It is difficult to see how a trial such as this could be constrained to limited time periods and the proposal makes no mention of this. Presumably then the intention is to close the airspace for the long periods that are referred to.

Without DACS the TDA is not danger area, but has much in common with prohibited area with very limited opportunities for access.

Given that this is described as a trial, it is not appropriate to "sterillise" such a large amount of airspace in such a busy area with little or no ability to access that airspace.

It could be claimed that the level of the airspce would not affect most aviation users, but this is not true. Many aircraft operated by the groups listed above regularly operate at the levels proposed,in particular over the sea.

Reply from Skylift UAV Ltd:

Thank you for getting in touch and for your feedback. We appreciate the inconvenience of the TDA, however; currently, we have no option but to operate in a TDA as BVLOS (beyond visual line of sight)

drones are not allowed to operate alongside manned aviation. Segregated airspace is the only option. Most of us come from a manned aviation background so we are aware of the imposition on local airspace users and have tried to make the TDA as small and VFR-friendly as possible. Please refer to CAP 1915 for further information as to the CAA requirements for BVLOS drone operations.

We agree that a VHF frequency for DACS or DAAIS would be the ideal solution for airborne traffic, however; the regulations only allow us to provide a phone number for Pre-Flight Information. We are attempting to engage with the local ATS providers to see if they can help with providing a DACS or DAAIS. If we are successful, this will be included in the Engagement Report to the CAA and would be promulgated in any NOTAM associated with the TDA. We are also engaging with HEMS, the National Police Air Service, HM Coastguard and the Thorney Island users to ensure our operations are compatible with their needs. Additionally, we are contacting other local users for their input and feedback.

With regards to the blocks of airspace, we have broken the route into 3 sections in order to be able to place the vertical upper limit as low as possible. In area B, over the water, there is a vertical limit of 400' AMSL which is below the limit of VFR minimum altitude of 500' over non-built-up areas. Areas A and C both have either higher terrain or obstacles which require the upper limit to be higher. However, with regards to VFR flight rules, these upper limits still remain below the lower limit of VFR flight rules (see SERA.5005) where possible and are therefore aimed at having minimum impact on general aviation users. The routing has been selected to minimize flight over built-up areas. The dimensions of the TDA are calculated based on the requirements for a flight volume, contingency volume and emergency buffer as set out by the CAA in CAP1915.

I hope this helps to clarify our efforts and to stem your concerns.

Response from Pilot A:

Thanks for you reply.

I have further feedback based on this.

You state that "we have no option but to operate in a TDA as BVLOS". This is not true. You have the option not to operate. The "do nothing" option should always be considered and addressed in all proposals.

Also, "regulations only allow us to provide a phone number for Pre-Flight Information" Which regulations? OFCOM will gladly license you and your operators and provide a frequency I would have thought. Perhaps even explore the potential to use SAFETYCOM?

Whilst the TDA does appear to be below "normal" VFR levels, there is no mention of a buffer zone as required by CAP 1915.

Nor do I see any mention of deconfliction from ships / boats in the Solent. This is a busy waterway with large vessels, including oil and gas tankers. How do you intend to mitigate any failure of your aircraft from impact with flammable gas carrier which you cannot see (BVLOS?).

Whilst you have an interesting proposal, until such time as detect and avoid technology is reliable and effective, it is difficult to see (no pun intended) how you can operate for an extended route BLVOS over a busy commercial waterway such as the Solent..

Reply from Skylift UAV Ltd:

Thank you for your further response and our apologies for the delayed reply. We were awaiting a written response from the CAA regarding Pre-Flight Information.

Skylift UAV had originally intended to provide a DAAIS via a radio frequency in accordance with the AIP, ENR 1.1, para 5.1.3.4. The CAA recently informed Skylift UAV verbally during a meeting that only ATCOs and FISOs can provide a DAAIS. The CAA have now put this in writing to Skylift UAV: "The definition and requirements for a DACS and DAAIS are laid out in ENR 1.1 para 5.1.3.3 and 5.1.3.4. Both are inflight services where a DACS provides a clearance and thus must be by an ATCO whereas a DAAIS is not a clearance but is instead passing the status of the airspace and therefore can be provided by a FISO. There will be licensing requirements on the Unit (the service provider) as to what they would need to be able to provide AFIS or ATC." Skylift UAV can therefore only provide Pre-Flight Information over the phone. While Skylift UAV would gladly use a VHF radio installed on the aircraft, the CAA currently has no mechanism to provide Skylift UAV with a call sign, as they do not put unmanned aircraft on the G-register. A G-registration is required for an Ofcom aircraft radio licence. The CAA have informed Skylift UAV that they are addressing this issue internally. Skylift UAV intend to maintain at least a listening watch on SAFETYCOM.

The dimensions of the TDA must contain the flight volume, contingency volume and emergency buffer as set out in CAP1915. The justification for the dimensions of these volumes, and hence the TDA, is addressed in the Operating Safety Case (OSC) that Skylift UAV must submit to the CAA.

Deconfliction from shipping forms part of Skylift UAV's risk assessment and OSC. It is not addressed by the airspace change process (ACP). However, we can provide the following information to you. One of the Skylift UAV employees is a Master Mariner and Flyby Technology has ex-Royal Navy flying instructors available to provide advice. The height at which the aircraft will fly (approximately 80m) is above the superstructures of most ships. The aircraft is fitted with both a forward-facing camera and a 360-degree camera (as part of a trial detect and avoid system). The remote pilot's moving map display will have an input from the marine Automatic Identification System. Skylift UAV will also check Southampton Vessel Traffic Services for large ship movements. In the event of motor failure or total power loss, the aircraft is fitted with an independent ballistic parachute system.

I hope this helps to address your concerns.

Response from Pilot A:

Thank you for your reply.

I am little confused by your statement that the CAA do not currently register UAS. Here is a picture of the UAV G-CLLU. As you can see, it is clearly registered.

The Registration is still current according to GINFO.

Reply from Skylift UAV Ltd:

Thanks very much for that useful information – we were not aware that the aircraft pictured had been G-registered. As part of another project, when Skylift UAV (and the departments that they were dealing with in the CAA) were under the impression that they could provide a DAAIS, they were advised by the CAA UAS Sector Team to register their aircraft with the CAA Aircraft Registration Team. This was at the end of last year. I was not part of the e-mail chain but my understanding is that the Aircraft Registration Team informed Skylift UAV that they could not put the aircraft on the G-register because it was a UAV. This went round in circles for a few days until the CAA took an internal action to resolve the issue. I then received the following information in an e-mail from the UAS Sector Team: "The registration team are unwilling to open up the G-register to small UAS" and there was a promise of policy work to resolve the problem with issuing call signs to UAVs. We heard nothing more about this policy work and events were subsequently overtaken in mid-February by the conversation informing Skylift UAV that they could no longer provide a DAAIS as planned. So, while there is no immediate requirement for a call sign, we will be pursuing the CAA for a resolution, as we believe that allowing properly trained remote pilots to use a radio on a UAV enhances safety for everyone involved.

Following the distribution of the update e-mail to stakeholders as per section 6.1, further feedback was received from Pilot A:

Dear Sirs,

Any extension to 90 days is effectively a 200% increase in the timescale for this "trial".

If this ACP is approved the associated TDA would be in place for 3 months (albeit activated by NOTAM) without the opportunity for review by airspace users or the Regulator. It is inevitable that lessons will be identified during the trial that may require a revised airspace structure and / or other material changes.

With this in mind it would make much more sense for a shorter trial period as already applied for (28 days) followed by a pause and a review. This review should be used to inform further operations.

It should be made clear that any TDA operations past the initial 28 day period will be subject to review by the Operator, the Regulator and other interested parties. This would give the opportunity for changes if required.

Reply from Skylift UAV Ltd:

Thanks again for your feedback. It will be included in the engagement report that will be submitted to the CAA and upon which they will make their decision as to whether to approve the TDA or not.

Response from Pilot A:

Just a couple more observations if I may.

You have said that the UAV will be carrying and operating a MODE-S transponder and emitting ADS-B also. You've also said that the CAA are refusing to register your air vehicle. May ask then what HEX code will be set in the Transponder and what Flight ID (FLID) or Aircraft ID (ACID) will be emitted?

I'm not sure how you go about getting a HEX code without a valid aircraft registration on a Civil Air Vehicle (the military have their own processes). I'm also not sure you will be able to emit anything on 1090Mhz without a Radio licence from OFCOM, which will require an aircraft registration, I think.

My questions may come across as negative and a bit of nit picking, but I hope they help you. These are questions that the regulator is likely to ask of you before giving permission to operate your trial.

Regardless of all this, i wish you well in your efforts. I was involved in Project Claire, the first trial UAV flights in the UK conducted within controlled airspace. Those flights were not segregated and were operated in the same airspace as civil air traffic, so recognise many of the challenges you are facing.

Reply from Skylift UAV Ltd:

Thanks very much for your observations and for your good wishes. From what you have told us about your previous experience, you may be interested in finding out more about the CAA guidance under which Skylift UAV currently operate. Apologies if you are already aware of this document but CAP 722 is the main point of reference for UAS in the UK. Section 3.5.3.1 on page 112 sets out the rules for 24-bit aircraft addresses in electronic conspicuity devices fitted to unmanned aircraft. You will see from this document that the CAA will allocate a unique 24-bit address. With regard to frequencies and Ofcom licensing, Skylift UAV's understanding is that the aircraft is compliant with section 3.3 of CAP 722, starting on page 102. Specifically, 1090 MHz is within an allocated frequency band and Skylift UAV will install appropriately approved devices on their aircraft. Nevertheless, we

do have a point of contact in the CAA to which we are able to send queries in advance so that we can address any issues before submitting the operating safety case.

I trust the above addresses your further observations.

Pilot B

Name	[redacted]
Job Title / Role	Microlight pilot and member of the British Microlight Aircraft Association's Airspace Team
Company / Organisation	British Microlight Aircraft Association
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

I am a microlight flyer based out of Hadfold Farm, West Sussex and represent a large group of GA/microlight flyers based around Sussex (Southern Flyers). We are all members of either the British Microlight Aircraft Association (BMAA) or the Light Aircraft Association (LAA). I am also a member of the BMAA's Airspace Team. Only through that group we became aware of your above ACP. We have seen all the documents uploaded to the portal as of end of today but are concerned about the lack of targeted engagement thus far, considering it is now 11 days into the 4 week reduced engagement period.

As your proposed TDA route is directly over the airfield of Thorney Island you may not be aware that there is a flying club based there that would be severely impacted by this TDA. Thus we would like to discuss this with you to see what can be done to prevent them from being potentially grounded for 4 weeks during the primary GA flying season.

I would therefore like to arrange a Zoom (or similar) meeting with yourselves to include the Secretary of the Thorney Island Microlight Club, XXXX (copied here), for one day week commencing 29 March, if possible. I personally can't make Tuesday 30th March so perhaps you can give me a few dates/times that you are available?

Looking forward to hearing from you soonest.

Reply from Skylift UAV Ltd:

Thank you for getting in touch and apologies for the delay in replying, as we have been working our way through the feedback received so far. Anyway, Skylift UAV are indeed aware of aviation activity on and around Thorney Island, and the last thing they wish to do is prevent anyone else from flying. To that end, they have been working with the MoD at Baker Barracks to minimise the impact on other airspace users, and XXXX (copied in) is co-ordinating a full response on behalf of all Baker Barracks stakeholders. Assuming that the Thorney Island Microlight Club is based at the Barracks, you may already have been contacted by XXXX. I don't want to duplicate the work that XXXX is doing but, nevertheless, Skylift UAV would be more than happy to speak to you both. The same applies if you are not based at Baker Barracks, of course. Can you please clarify whether you are based at the Barracks or not? We'll take the next step from there but I am reasonably certain that I can arrange a call with Skylift UAV on Wednesday this week (31st March).

In the meantime, as a measure of reassurance, the managing director of Skylift UAV comes from a manned aviation background and it is his intention not to disrupt other airspace users where possible. Skylift UAV would be the Danger Area Authority for the TDA, which means that they can allow access to the TDA as long as appropriate deconfliction procedures are in place. The remote pilots for the unmanned aircraft will be based at Thorney Island and it will be possible to contact them via a phone number to ascertain TDA activity (which will also be promulgated by NOTAM at least 24 hours in advance). The TDA is a proposal at this stage: if it needs to be adjusted to accommodate local flying operations, Skylift UAV will certainly look to do that where possible, or agree a deconfliction procedure.

I'm sure we will speak soon.

A meeting was subsequently arranged between Pilot B, Thorney Island Microlight Club (TIMC) Secretary and Skylift UAV on 31/03/21.

For engagement regarding TIMC, please refer to the Stakeholder Response for TIMC below, as all subsequent engagement was with the club secretary.

For engagement with the British Microlight Aircraft Association (BMAA), please refer to the Stakeholder Response for the BMAA below.

Baker Barracks, Thorney Island

Name	[redacted]
Job Title / Role	Deputy Commander
Company / Organisation	7 Air Defence Group
E-mail address	[redacted]
Contact number	[redacted]

Early engagement took place with Baker Barracks as a result of the plan to operate the RPA from that location. To that end, Baker Barracks provided the following summary of local airspace considerations:

Airspace considerations	An airspace change request has been raised with the Civil Aviation Authority (CAA) and Military Aviation Authority (MAA). ACP-2021-002 The timelines for this proposal are: • Stakeholder engagement – to be completed by 16th April 2021 • Final submission – by 21st April 2021 • CAA regulatory decision – by 19th May 2021 • AIC Publishing Schedule – 21st May 2021 • Implementation – 1st July 2021 [redacted] – please coordinate a full response, on behalf of all Baker Barracks stakeholders, and reply to [redacted] by **14 Apr 21**. I will send you a separate email with the exact details. For SA of all, the other aviation users of the site include: - Users of 2x active mil helicopter landing sites, at either end of the 01/19 runway - Thorney Island Microlight Club - Southampton University RPAS - Chichester and District Model Aircraft Club - Industry Partner RPAS various - Royal School of Artillery RPAS

As per the summary above, the full response from Baker Barracks on behalf of all local stakeholders was provided via Ministry of Defence - Defence Airspace and Air Traffic Management (please see Stakeholder Response for Ministry of Defence - Defence Airspace and Air Traffic Management below).

British Microlight Aircraft Association

Name	[redacted]
Job Title / Role	BMAA Airspace Team
Company / Organisation	British Microlight Aircraft Association
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

This response is submitted on behalf of the members of the British Microlight Aircraft Association (BMAA). We have approximately 3800 members flying 1600 regulated microlights and approximately 300 unregulated microlights.

Our members largely fly for leisure, although we have around 200 flight instructors many of whom operate full time training schools. Although much of our members' flying takes place at weekends we do have many members who are able to fly during the week and so access to airspace is important to us.

Almost all our members' microlights have radio, a growing proportion, although still a minority, carry a transponder and / or an EC device.

Firstly, in general terms the BMAA does not object to the primary stated aims of this ACP, i.e. to use proven and CAA-approved RPAS to provide expeditious delivery of chemotherapy and other medication for the NHS.

However, we have several concerns about this ACP, as detailed below. The primary concern is the impact this TDA could have in preventing continued operation of the BMAA members of the Thorney Island Microlight Club (TIMC) – see item 1. Our summary therefore sets out a number of conditions for our support of this proposed operation.

Our detailed concerns are:

1. Since the proposed TDA routes directly through Thorney Island airfield and, as presently proposed, it would completely prevent the TIMC members from flying for the duration of this TMA, when activated. We have subsequently learned, from engagement with the sponsor, that their RPAS will operate from Thorney Island (this was not mentioned in their SoN), which increases the potential impact on the TIMC. Thorney Island is located in Class G airspace with no ATZ. **Such an impact on the approximately 21 members of TIMC would lead the BMAA to strongly object to this ACP.** We hope that the ACP sponsor can either change the TDA routing and their base of operations or come to an accommodation with TIMC to enable them to continue operating from the airfield.

   Engagement meetings have recently taken place between TIMC and the ACP sponsor and progress has been made to arrange for a Letter of Agreement (LoA) between TIMC and the sponsor (Skylift UAV) to enable joint operations at Thorney Island. **Such a LoA between all parties concerned with operation of this TDA and that enables continued and continuous flying operation at Thorney Island airfield is a condition of acceptance of this TDA by the BMAA.**

2. As part of the LoA discussions a major safety benefit would be the ability of the UAV pilots, which are the subject of this ACP, to receive and transmit position reports to microlights operating out of / into Thorney Island. For operation at Thorney Island all TIMC aircraft are required to be radio equipped and licenced and use SafetyCom frequency, in common with many other small airfields, in order to transmit position and intentions in order to maximise safety. The technology exists to utilise aircraft transportable radios, we have been informed by the sponsor that the pilots of the RPAS are appropriately licenced to operate a radio, therefore there should be no barrier to UAV use of SafetyCom as part of this trial to prove interoperability with other airspace users. If airspace users are expected to be responsive to enable solutions such as this proposal to aid the NHS, we would expect the policy application to be equally responsive to change. We understand from the sponsor that the CAA have advised they cannot use a call-sign. However, we understand that during the Solent Transport trial based out of Lee-on-Solent airfield last year this was enabled. So, we would suggest that the CAA review the procedures to enable Skylift UAV pilots to have the same facility and thereby increase the safety of the UAV operations.
3. We also have concerns over the engagement of stakeholders. Whilst the CAA have enabled the engagement period to commence on 15/03/21 the TIMC were only made aware of this ACP on 22/03/21 when the BMAA Airspace team passed it to them. As the aviation stakeholders most impacted by this ACP it is inexcusable that the sponsor did not make immediate direct contact, especially as they had been in contact with the Thorney Island airfield owner/operator (MOD/DE) for some considerable time. (Note: the Thorney-based army unit that coordinate with TIMC only advised the Club of this ACP on 07 April). This had the effect of shortening the engagement period for the most impacted stakeholder to 3 weeks. Compounded by a shortened engagement period for 4 weeks, which included Easter public holidays (CAP1616 says engagement periods should take into account such holidays) we find the engagement period unjustified. The justification given is the requirement to assist the NHS. However, we understand the sponsor has been discussing this trial with the NHS for the past 9 months so why could the ACP and stakeholder engagement not have started much sooner?
4. Whilst we all fully support the need to assist the NHS with critical medication deliveries there are inconsistencies in the SoN. The assertion that alternative delivery options take 3 to 4 hrs does not tally with journey times currently available by Hovertravel's hovercraft services, which would be more like 1hr. Secondly, the SoN says that chemotherapy drug supply is dictated by the PMU's capacity and need to have orders confirmed by 12:00hrs on day prior to delivery. This does not tally with the proposal to deliver on the same day of confirmed demand. So the sponsors assertion that "….a 32-minute direct flight between the two hospitals would be transformative, as the chemotherapy could be manufactured once the patient is confirmed to be present….." is inconsistent. That said we support any suitable and safe transport means to increase the efficiency of NHS deliveries, providing it does not put other people at safety risk. But suggest that the CAA need to demonstrate its oversight of the CAP1616 in questioning SoNs at the outset rather than accepting them at face value. Otherwise there is a risk of losing credibility.
5. Proceeding from the above one has to wonder what happens at the end of the 4-week trial? If successful are the NHS going to require the long-term continuation of this service? Is it cost-effective when not supported by grant funding? Will it require a permanent TMZ or will this trial assist in developing technology to truly integrate the RPAS with all other airspace users in truly non-segregated Class G airspace AND all maritime users, since the TDA and associated OSC will involve flying at extreme low-level across one of the busiest sea channels in the country? We note that in other ACPs a condition of approval has been that once the sponsor has completed their trial they should expeditiously deactivate the TDA.

6. The sponsor has stated in their initial SoN that they request a TDA for their 4-week trial. Everyone who has read this ACP correctly identifies this as a 4-week TDA period. The TDA regulations state that the duration should be the minimum required to conduct the proposed operation. However, during the engagement with the sponsor it seemed that the sponsor thought a TDA was automatically for a period of 90 days, rather than that being the normal maximum time for a TDA. Did the CAA not explain this to the sponsor? Consequently, we understand, the sponsor has had further discussions with the CAA and subsequently requested an extension, to a 90-day TDA period, which seemingly has been accepted without justification? So, the engagement period for a longer TDA period is even shorter. Furthermore, we understand from the sponsor that the requirement for a longer period of TDA use, rather than being for themselves, is to enable another, unconnected UAV operator to have access and fly within the TDA. We understand this is the consortium known as Solent Transport. The sponsor of this ACP (Skylift UAV Ltd) has advised that they will remaining the Controlling Authority of the TDA. This raises several additional questions. How does the CAA tie up the sponsor's OSC with the TDA? Have the CAA received an OSC from Solent Transport as well as Skylift UAV to operate within this TDA? Surely if another, separate operator requires a TDA they should submit a separate ACP with their own SoN? Otherwise, it allows an operation with no SoN. Another example of undermining credibility of the ACP process. We note from other ACPs that a condition of approval is that the CAA must approve the OSCs of all UAV operators who will operate within the TDA before activation. The BMAA therefore request that the TDA, if granted, be for the 4 weeks only required for the Skylift UAV trial and thereafter immediately deactivated. Any attempt at extending / mutating the TDA into supporting other trials / activities is highly likely to cause confusion and impact safe air operations.

7. We understand there is no provision for a DACS (which requires operation by an ATCO) nor even a DAAIS (which requires a FISO at least) by radio. Provision of a DAAIS by telephone/SMS is useless to airborne aircraft, for example aircraft or UAVs inbound to Thorney Island operating later than expected**.** A remotely operated DAAIS, such as use of a FISO at Lee-on-Solent Airfield, is also impractical as they will be just as reliant on telephone communications in order to provide any sort of radio service to aerial users, and there would be questionable radio reception at low level over Thorney Island.
8. **We therefore consider that provision of, at minimum, a DAAIS by radio is essential and we suggest the CAA assist in facilitating this. If the CAA requires an ATCO or FISO on duty during provision of a DACS / DAAIS then that should be a cost borne by the sponsor as a cost of doing business.**
9. We have concerns over the safety of shipping with these RPAS operating in the TDA 'Zone B' at below 400ft across the Solent. Is it not an overarching rule that all such proposed air platforms must operate "500ft from people, vehicles, vessels and structures, except when undertaking airfield operations such as take-off and landing". These UAVs are in similar size/weight category as some microlights so why should there be different regulation here?

   We have been advised that Skylift's UAVs will be able to receive marine AIS transmissions. However, we understand many marine operators do not have AIS transmit capability (and that Royal Navy warships often do not transmit). Thus, the BVLOS team and system cannot know the location of all affected vessels in Zone B, and therefore, adding a nominal 100ft for superstructure & masts, once outside of the 'airfield operations / LOS' zone, the UAS shouldfly above 600ft, and less than, say, 850ft ceiling of the corridor.

   Whilst not strictly an aviation impact risk we would nevertheless ask what checks the CAA have/will carry out to ensure the safety to shipping, particularly large liners, container ships

and RN vessels (including the new aircraft carriers) as well as ferries, hovercraft and small pleasure craft, of extreme low-level UAV operations without approved DAA technology? Any incidents involving marine users could have a detrimental impact on microlight operations in the area.

10. We have concerns about the operation of the UAVs within the Portsdown HIRTA, especially since that will be within an urban environment. Whilst the sponsor advises they will be conducting tests with BAe Systems (the HIRTA operator) we hope that the CAA will analyse the data and reports with appropriate experts and publish the results on this ACP to confirm that this will not affect the command and control signals between ALL of the UAVs proposed to operate within this TDA – not just 1 model of Skylift's UAVs (bearing in mind our information that other operators could expect to use this TDA). We are particularly mindful of the recent AAIB report on the lack of oversight of the UAV operated at Goodwood in July 2019 and the consideration that a nearby VOR transmission may have caused the loss of commend.

In Conclusion

The BMAA will not object to this ACP given the following conditions:

- The sponsor concludes a LoA with TIMC to their satisfaction to enable its members and permitted visitors to continue flying as normal.
- The CAA agrees to enable the sponsor's pilots to use RT communications to provide additional safety for combined operations.
- An effective DAAIS or DACS by radio is available whenever the TDA is activated.
- The sponsor ensures that tests for compatibility with the Portsdown HIRTA are analysed and validated.
- The sponsor ensures that there is no risk to marine activities from very low-level UAV operations.
- The SoN covers ALL proposed RPAS operations for the TDA period and that the CAA approves OSCs for ALL UAVs proposed to operate within the TDA**.**

Reply from Skylift UAV Ltd:

Thank you very much for the feedback provided in your e-mail below. You have raised a number of important issues which Skylift UAV welcome the opportunity to address. With the senior management at Skylift UAV coming from a manned aviation background, they are just as keen as you are for a safe flying operation to be in place. Having discussed your feedback with Skylift UAV, which will obviously be provided in full to the CAA, we think it best to address the points raised in your conclusion.

TIMC have engaged positively with Skylift UAV and have been extremely helpful in proposing options for safe, deconflicted operations should they wish to fly when the TDA is active. A Letter of Agreement is in the process of being drafted. The last thing Skylift UAV would want to do is prevent anyone from flying and they are grateful to TIMC for their cooperation.

Skylift UAV are in total agreement with the BMAA with regards to the use of RT communications and the additional safety benefit provided. Skylift UAV are in ongoing discussions with the CAA to resolve

this issue but, at the very least, Skylift UAV will maintain a listening watch on Safety Com when the TDA is active.

Skylift UAV share the concerns of the BMAA regarding a DACS/DAAIS, and they have attempted to arrange for such a service to be put in place without success so far. Pre-Flight Information for the TDA will be available via a telephone number. Skylift UAV understand that it will form part of the CAA's consideration of this ACP at the decision stage as to whether a DACS/DAAIS is required or not.

Skylift UAV will include the results of the testing conducted within the Portsdown HIRTA, the subsequent risk assessment and how they intend to mitigate any associated risks in their Operating Safety Case (OSC) that must be authorised by the CAA prior to the commencement of any flying operations. Similarly, Skylift UAV will include in their OSC the results of their risk assessment and mitigations with regard to shipping. There is no requirement to publish the content of an OSC (indeed, OSCs contain a significant amount of intellectual property so you can understand why this is the case) but any changes to the ACP resulting from the CAA's assessment of the OSC will of course be made public.

The ACP and Statement of Need as published on the Airspace Change Portal covers the proposed RPAS operations as they stand, i.e. Skylift UAV only and for a 3-month period, extended from the initially proposed 4 weeks at the request of the NHS.

Response from British Microlight Aircraft Association:

Thank you XXXX.

All received.

Chichester and District Model Aero Club

Name	[redacted]
Job Title / Role	Secretary
Company / Organisation	Chichester and District Model Aero Club (CADMAC)
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

The Chichester and District Model Aircraft Club (CADMAC) flies radio-controlled model aircraft on Thorney Island.

Times:

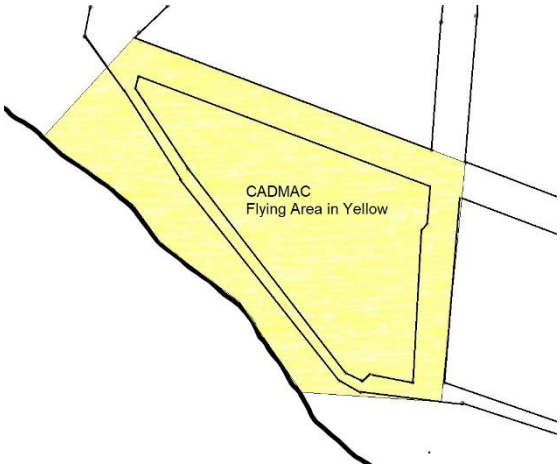
We fly on Saturdays, Sundays and Bank Holidays between 10.30 am and 6.00pm.

Occasionally, during the summer, we may also fly midweek during the day or evening, subject to the agreement of the Thorney Island staff.

Where:

We fly from the southern end of the north-south runway on Thorney Island.

The diagram below shows our flying area:



A microlight club also flies from Thorney, and our flying area is wholly inside their flying circuit. The microlight club and CADMAC have been flying on Thorney Island for many years, and CADMAC pay an annual fee to the base/MOD for use of the site.

Comment:

CADMAC's airspace falls inside the proposed Temporary Danger Area (TDA) dimensions, and the proposal encompasses the days and times that CADMAC usually flies.

As such CADMAC objects to the proposal as presented because it will effectively prevent us from flying at our site that offers unique features (such as a hard runway).

However, we understand that the route that the Skylift remotely-piloted aircraft will be flying is to the west of our flying area, and that the company is actively negotiating with the microlight flying club with a view to reaching an agreement for mutual operations. As the airspace in which CADMAC flies lies wholly within that of the microlights' flying circuit pattern we envisage that an agreement with the microlight club can also encompass CADMAC's flying activities. We understand that Skylift has already indicated that they would be prepared to agree to an alleviation for microlight operations to continue as normal. This being the case we request that CADMAC's activity also be included under the an "umbrella" agreement. If such an agreement can be reached CADMAC would have no further objection to the TDA proposal.

Skylift UAV had already been in discussions with Thorney Island Microlight Club (see the Stakeholder Response for TIMC below) and were aware that CADMAC operations were wholly contained within the airspace required by the microlight club. To that end, it had been agreed between Skylift UAV and TIMC Secretary that a 3-way letter of agreement might suit the situation, so TIMC Secretary put this option to CADMAC and asked them to send the appropriate details to Skylift UAV. Below is that response from CADMAC:

I understand that you have been in communication with XXXX from the Thorney Island microlight club regarding a letter of agreement (LoA) that will permit the club, and our model club (CADMAC), to continue flying during the forthcoming UAV trial.

I have been asked to pass the following CADMAC details on to you for the LoA:

Chichester and District Model Aero Club (CADMAC):

POC: XXXX, CADMAC Secretary.

Postal address:

XXXX

Email: XXXX
Mobile: XXXX

CADMAC flies at Thorney Island on Saturdays, Sundays and Bank Holidays between 10.30 am and 6.00 pm. Occasionally, during the summer, we may also fly midweek during the day or evening, subject to permission from Thorney Island staff. If Thorney Island staff do agree to any additional midweek flying CADMAC could inform Skylift, if requested.

Please let me know if you need any further information.

Thank you.

Reply from Skylift UAV Ltd:

Thanks very much for the information below and thanks also for the feedback you sent to us earlier today. The last thing we would want to do is stop you flying so I am glad we can include you in the

letter of agreement with TIMC. We are just ironing out our routing into and out of Baker Barracks from an ecological point of view and I will be speaking to XXXX tomorrow to finalise deconfliction from military activities, so I hope to have a draft LoA to you and XXXX at some point next week.

Response from CADMAC:

Many thanks for your proactive response to our request; much appreciated!

I look forward to receiving the draft LoA in due course.

Skylift UAV Ltd continued to work with CADMAC to write a 3-way Letter of Agreement that would allow both CADMAC and TIMC (see Stakeholder Response for Thorney Island Microlight Club below) to continue to operate while being safely deconflicted from Skylift UAV Ltd operations.

Pilot C

Name	[redacted]
Job Title / Role	Individual GA/Microlight pilot
Company / Organisation	N/A
E-mail address	[redacted]
Contact number	[redacted]

The following initial feedback was received:

First of all please note this is NOT my response to your ACP, that will follow in due course. It is, however, my initial reaction to the short timescale for response and you should take it as the first part of my Feedback.

Quite frankly I do not believe the reason given for shortening the timescale. We are coming out of Winter so ferries/boats will be less disrupted by adverse weather, and if the requirement is urgent then how could the TDA be activated at 24 hrs notice, for 4 flights a day and on only 5 days a week? I strongly suspect that the NHS Trust has relied on your advice regarding the process and that you have deliberately used the NHS as a means to avoid full scrutiny and feedback.

I object most strongly to the inadequate consultation you propose.

Reply from Skylift UAV Ltd:

Thank you for your initial e-mail regarding the shortened engagement period for ACP-2021-002. As per the e-mail sent to identified stakeholders and available on the CAA's Airspace Change Portal (ACP-2021-002), the reason given for shortening the timescale is "due to the call for help from Isle of Wight NHS Trust to mitigate the impacts of COVID-19 on its cancer patients." The Statement of Need, available in the same location, identifies numerous reasons provided by Isle of Wight NHS Trust to justify this trial, of which winter disruption is just one. The Statement of Need was provided to the CAA late last year, but it has taken until now for resources to become available at the CAA to move this ACP forward. Nevertheless, Skylift UAV is attempting to strike a balance between assisting the NHS and its patients as soon as possible while engaging with the aviation community that will be affected by this ACP. ACP sponsors are required to meet the requirements of the CAA Policy for the Establishment of Permanent and Temporary Danger Areas. You will see from Annex A of this document that, for a temporary airspace change such as this, engagement may be scaled to a maximum of 6 weeks and, subject to CAA approval, engagement may be scaled further. The CAA may also reject the scaling proposal. At the ACP assessment meeting on 15th March 2021, Skylift UAV presented their provisional timescales to the CAA. The CAA did not object to these timescales and pointed out that Skylift UAV had to be clear in its message to stakeholders that the engagement period is 4 weeks. The minutes of the meeting will be available on the Airspace Change Portal as soon as they have been approved by the CAA, and we expect that to be by the end of this week. You can therefore rest assured that, due to the regulatory requirements of the CAA, including that of publishing all documentation regarding the ACP on the public Airspace Change Portal, that there is no attempt "to avoid full scrutiny and feedback."

Nevertheless, your objection is noted and will, of course, appear in the stakeholder engagement report that will be provided to the CAA at the end of the engagement period. This report will also be made public on the Airspace Change Portal.

Response from Pilot C:

Please find attached my feedback on ACP-2021-002, Portsmouth-Isle of White TDA. As you will see, I object entirely to the proposal and am disappointed that I and other stakeholders have had to waste time assessing such an ill-considered proposal.

Feedback was attached to this response but was subsequently amended following publication of the assessment meeting minutes as per the subsequent response below. For clarity, Pilot C's amended feedback is reproduced in full below.

Please find attached my amended feedback for the Solent ACP. I have amended my previous feedback following your publication of the Assessment Meeting Minutes after I submitted it; the Minutes serve only to reinforce my objection.

FEEDBACK for ACP-2021-002 SOLENT TDA - AMENDED

FEEDBACK

On the morning of 26 Mar I submitted my Feedback on the Solent TDA ACP. At the time – one week into a curtailed consultation period – the Minutes of the Assessment Meeting had not been made available on the ACP Portal. They were made available later that day and caused me to reinforce my objection and, despite being pressed for time, to submit an amended feedback form. This amended feedback is my original feedback with amendments added in blue.

On 22 Mar 2021 I submitted a very brief e-mail to Skylift UAV Ltd with a very initial response objecting to this proposal. This Feedback provides more detail in support of that e-mail.

Overall, I object to this proposal on the grounds that the consultation is entirely inadequate, failing to meet the requirements of CAP1616 and of stakeholders.

1. **Requirements of CAP 1616 & 722 (Unmanned Air System Operations in UK Airspace – Guidance)**

1.1 CAP722 & Engagement Timescale

CAP722 provides guidance to civil UAS operators on how operations may be conducted and it explains that *"TDAs must not be considered to be a convenient 'catch all' for short notice UAS activities that can simply be requested and implemented, without due consideration for other airspace users. TDAs will be mainly used for longer term measures where activities have been properly planned and prepared and adequate time is available for full consideration by the CAA's Airspace Regulation team along with full promulgation"* (para 2.4.3).

The inadequate and truncated stakeholder engagement (see 1.2 below) and routing that includes an active GA airfield (see Section 3) do not provide due consideration for other airspace users. This proposal clearly fits the concern expressed in CAP722 that an ACP – such as this one – might not be properly planned and prepared.

1.2 Consultation Timescale

The consultation timescale has been set at 4 weeks, from 19 Mar to 16 April 2021. Yet that period includes:

- A major holiday – Easter,
- 29 Mar, a step in the easing of the England Lockdown, with solo flying resuming AND households will be allowed to meet for the first time, and
- 12 Apr, instructional flying can resume.

All of these significantly and unreasonably reduce the time available for consideration of the proposal by the GA community.

Moreover, as explained in para 1.2, the timescale is already reduced by one week because not all the relevant documents have, as of 26 Mar 21, been made available on the ACP Portal.

In its e-mail reply to my very early e-mail objection Skylift stated *"The CAA did not object to these timescales"* but the Minutes point out quite clearly that the CAA did not approve them either – *"There is no requirement for the CAA to formally approve Skylift UAV's intended engagement"*. What the CAA did say was *"Noting that the proposed engagement window was 4 weeks, CAA2 encouraged Skylift UAV to clearly set out why they think that is a reasonable period within their engagement material."* There is no such justification provided in the SoN.

*"The change sponsor must submit a **strong rationale** as to why they believe the engagement period could be shortened **before they begin their engagement activities**"* Sir Stephen Hillier (bold and underline by author) Chair CAA, letter to Pilot magazine April 2021. So where is or was the "*strong rationale*" for the truncated engagement period in this case before that engagement period began?

1.2 Informed Engagement

Consideration of the ACP would be difficult enough in the short timescale and with the significant events in 1.1 above. However, as not all the documents required for engagement are available on the ACP Portal the process becomes impossible.

1.2.1 Assessment Meeting Minutes. P 175 of CAP1616 requires that "*proposals are received by an informed, engaged audience*" but without access to the ACP Assessment Meeting Minutes (meeting 15 Mar 21, not on Portal as of 26 Mar 21) we cannot be '*informed*' and '*engaged*'. The GA community cannot, therefore, "*effectively feed-in their views*"

The Assessment Meeting Minutes should be published as one of the outputs of the requirement (CAP page 178)

1.2.2 Consultees. As of 26 Mar 2021 Skylift UAV Ltd has not published a list of consultees/stakeholders, directly contrary to the requirement of the CAP at page 177 *"Identifying the right audience"*

1.2.3 Consultation Principles. Consultation is supposed to be conducted in accordance with the UK Government's consultation principles (CAP page 181). These require:

- Provision of "*sufficient reason for any proposal to permit intelligent consideration*",
- Permit "*informed responses*" and
- "*allow adequate time for consideration and response*"

Without access to the required documents none of these requirements can be met. As the CAP states on page 182:

"Materials must provide respondenst with enough information to ensure that they understand the issues and the potential impact of the proposals on them, and can give informed responses – failure here will lead to ineffective consultation, which will be of little use to the change sponsor and will be unacceptable to the CAA"

2

2. Statement of Need

In response to my initial objection Skylift UAV Ltd stated that the trial was:

"*due to the call for help from Isle of Wight NHS Trust to mitigate the impacts of COVID-19 on its cancer patients."* – an apparently urgent requirement. The SoN then expands on this with discussion of current 'manufacturing' timescales for the drugs and transport times for deliver.

During the Assessment Meeting Skylift made no mention whatsoever of a call from the NHS for urgent help. The purpose of the trial is stated as *"A similar trial using UA was conducted in 2020 between Lee-On-Solent and Binstead Airfield. This proved that transport between the airfields was quick but that transport between the airfields and the hospitals at either end was still an issue. The Skylift UAV trial follows on from that trial* ***with the aim of establishing if flying directly between the hospitals provides appropriate time and cost savings.****"* (Bold and underline by author).

It is obvious then that there has been **NO** urgent "*call for help"*; the stated trial aim is to assess any time savings by flying hospital to hospital rather than via intermediate take-off and landing points.

Any UAV flight has 3 phases: take-off to top-of- climb (ToC), cruise and top-of-descent (ToD) to landing. The first and last elements will be the same in terms of distance and time and so will be known from data from the first trail. Knowing the cruise speed of the UAV will permit the calculation of the additional cruise time required. The only unknown being investigated, then, will be any changes to take off and landing phases caused in the immediate vicinity of the hospitals. This can be investigated and determined by trials conducted for take-off to ToC and ToD to landing in the immediate vicinity of the hospitals. No trial away from the hospitals is required and only 2 x much smaller TDAs might be required.

2.1 Drug Manufacture. Skylift UAV Ltd devotes a significant proportion of the SoN to the current process for the manufacture of the drugs. *"The current cut-off time for Isle of Wight NHS Trust placing an order for chemotherapy is noon the day before the patient is due to receive the treatment. This is a fixed cut-off as Portsmouth PMU manufactures over 50,000 doses per month and so it cannot be brought forward. This presents a large time-period between the manufacture of the chemotherapy and the patient receiving it, during which patients are clinically assessed and a significant proportion are found to be unable to receive the treatment."*

The determining factor - the bottleneck - is, then, the number of doses to be made each day which necessitates a "*fixed*" noon cut off. That is, for the 1st appointment of the day the Portsmouth PMU requires the 'order' to be given by noon the day before. I cannot see and the SoN fails to address how the use of drones improves this?

2.2 Urgency? Moreover, if the need is urgent "*due to the call for help from Isle of Wight NHS Trust"* – then why is the trial effectively 5 days a week, daytime-only and VFR? After all, cancer treatment does not stop when the weather is poor.

2.3 Current Transport Times. A cursory assessment of the time taken for drugs to be transported from Portsmouth to the Isle of Wight is at odds with the timescale stated in the SoN. Without detailed evidence to assess I am sceptical of this element of the SoN.

2.4 Trial Initiation for Commercial Purposes? The SoN provides no evidence to support the contention (e-mail reply to me) that the NHS Trust initiated this trial. It would make commercial sense for the Company to initiate the trial but that would alter the reaction of GA stakeholders who will be hampered by the TDA, and I hope it would alter the reaction of the CAA.

3. Airspace

Because of the limited time available this feedback focusses on the flawed consultation process and not on the TDA airspace itself. However, a very brief assessment of the airspace provides one further reason to object, and that is the route over Thorney Island airfield from the surface to 400ft.

Thorney Island is an active GA airfield and the TDA route provides no concession to GA activities despite the sponsor's claim to be "*VFR-friendly*". Almost all other TDA sponsors offer some form of Air Traffic Service to accommodate GA users based in TDA airspace but Skylift UAV Ltd offers:

"a comprehensive communications system in place, which can automatically text, for example, ATDs and ETAs to anyone that requires that information, and we can also provide Pre-Flight Information for the TDA via a dedicated telephone number."

Use of phone/text might be acceptable in the cockpit when stationery on the ground but updates are likely to be required for aircraft returning to or arriving at the Airfield. Not all pilots use their phone as a GPS navigation aid and, anyway, use of the phone for making/receiving of phone calls and texts when airborne poses a much higher risk and is not encouraged, especially in the airfield circuit pattern.

4. Summary

Although only subject to a quick assessment the Airspace of this proposal would effectively curtail operations at Thorney Island with unacceptable mitigation – airborne use of mobile phone by pilots. This proposal is made without the required *"due consideration for other airspace users".*

Without evidence of an NHS-initiated and defined need this proposal seems more likely to be based on a commercial offer by Skylift UAV Ltd, and that should not be the principal reason to grant an ACP. Indeed, the stated aim of the trial makes no mention of Covid or Cancer assistance and it could be easily achieved in other ways.

The use of 'Covid-emergency' and 'assistance to cancer treatment' as reasons for the ACP are convenient and very emotive, but no evidence whatsoever is presented to support either contention. Indeed, the limits of Mon-Fri, daylight VFR-only suggest a routine trial not an emergency reaction.

Moreover, the Assessment Meeting Minutes clearly states: "*the aim of establishing if flying directly between the hospitals provides appropriate time and cost savings.".* Nothing whatsoever to do with emergency Covid support to NHS, and no "*strong rationale"* is provided for the truncated engagement with the GA community.

Skylift UAV Ltd has already operated drones for drug-delivery for at least one NHS Trust and surely the results from that could readily inform any NHS decision-making without the cost and disruption of another trial and TDA?

The proposal is hurried at best and designed to limit engagement/avoid scrutiny at worst. It fails to follow the requirements of CAP 1616 and 722, fails to provide the required documents and fails to take account of times when, reasonably, consultation will not be the priority of stakeholders.

Were the timescales and information in this ACP to be improved to meet the needs of the CAP and those of stakeholders I would re-consider my reaction to this proposal. As it stands I object to it on the grounds that:

- It fails to facilitate adequate, meaningful and informed consultation, as required by CAP1616
- It fails to adequately mitigate the significant impact on Thorney Island airfield.
- The SoN provides no evidence as to how a successful trial might improve the stated treatment 'bottleneck' – the lead time for drug manufacture.

This ACP is hurried and misleading, and there is no justification for it to meet the stated trial aims. It is a shame that it has been progressed this far as it wastes time for everyone concerned. As more ACPs are proposed the CAA risks being overwhelmed, and 'meaningful engagement' and 'informed responses' with stakeholders – many of whom are unpaid volunteers – will be more and more difficult. This ACP should not become a precedent for further unnecessary effort.

Reply from Skylift UAV Ltd:

Thank you for your amended feedback. This will be included in full in the stakeholder engagement report that will be provided to the CAA at the end of the engagement period.

Allow me to address your main points.

Once it has been determined in the airspace change process assessment meeting that a TDA is the appropriate airspace structure for the proposed operation, ACP sponsors are required to meet the requirements of the CAA Policy for the Establishment of Permanent and Temporary Danger Areas. It is Skylift UAV's belief that they have complied fully with the guidance in Annex A of that document thus far.

Skylift UAV's business partner, Apian Ltd, who are the direct interface to the NHS on this project, have provided a response (attached) to your objections to the Statement of Need. In addition, Skylift UAV would like to make the following points. To their knowledge, Skylift UAV have not used the words "urgent" or "emergency" (other than to describe "emergency services") in any of their engagement material. The Statement of Need was discussed in the assessment meeting as per *Item 2 – Statement of Need (discussion and review)* recorded in the minutes of the meeting. *Item 3 – Issues or opportunities arising from proposed change* in the minutes of the meeting does indeed refer to "establishing if flying directly between the hospitals provides appropriate time and cost savings", so this was intended to describe an opportunity arising from the proposed change.

Skylift UAV have engaged with the MoD, who operate the Baker Barracks estate on Thorney Island. The MoD are coordinating with all the local airfield users on behalf of Skylift UAV with the express intention of not stopping anyone from flying. All communication with the MoD and local stakeholders will be submitted with the stakeholder engagement report. However, it is worth noting that Skylift UAV and Thorney Island Microlight Club are working constructively together to deconflict operations and to allow the club to continue to operate with minimum impact, even when the TDA is active.

Skylift UAV agree that a DACS or DAAIS would be the ideal solution for airborne traffic. However, the regulations currently only allow them to provide a phone number for Pre-Flight Information. Skylift UAV do not recommend the use of phones whilst airborne. Skylift UAV are attempting to engage with local ATS providers to see if they can help with providing a DACS or DAAIS. If they are successful, this will be included in the stakeholder engagement report and would be promulgated in any NOTAM associated with the TDA.

Skylift UAV can assure you that this proposal has not been hurried, is not designed to limit engagement or avoid scrutiny, and it does follow the requirements of the airspace change process as described above. It is unfortunate that you feel time has been wasted for everyone concerned.

Skylift UAV do not believe that to be the case and, as stated above, your feedback will be provided to the CAA for them to consider at *Stage 5: Decide* of the airspace change process.

As indicated in the attached letter from Apian Ltd, the Airspace Change Portal has been updated with the NHS request to extend the 4-week trial to 90 days. This update has been discussed with the CAA and the remaining details of the airspace change proposal are unchanged. All stakeholders have been informed and have been offered the opportunity to provide further feedback.

Letter from Apian Ltd to Pilot C (attached to the above e-mail reply from Skylift UAV Ltd):

Thank you for taking the time to provide us with feedback. My name is XXXX, and I am a doctor in training at Barts and The London. We founded Apian out of the need that my partners and I saw first-hand, working within the NHS, to help reduce the intensity of pressure on our fellow colleagues, and ultimately improving patient safety and experience. Apian is the service provider for this project.

Whilst I understand your concerns with the consultation timescale, we are also greatly concerned with the timescale required to deliver life-saving chemotherapy to the patients on the Isle of Wight. I note your doubt over how urgent the matter is and the source of it, so we thought it might be helpful to share the letter of support from the Chief Pharmacist at Isle of Wight NHS Trust. A redacted copy of this letter has been uploaded to the Airspace Change Portal. We've been working with St Mary's Hospital for 7 months now in understanding how patient care could be improved and have the full support of the hospital's board. Importantly, we want the service to be easy to use for staff who are going to be conducting the work within the clinical setting, which is why flying point to point is so important. This way we can train the porters and pharmacists to establish standards and best practice guidelines for the NHS as a whole. Furthermore, amongst other clinically related benefits, this trial will provide valuable medical research (which does not yet exist) on the viability of chemotherapy delivered by drones, such that future related services are grounded in an evidence-base that upholds patient safety to the highest standard. Apian is part of the NHS Clinical Entrepreneur Programme and this project is being keenly monitored by many others across the NHS.

Concerning drug manufacture, by using drones we're able to cut the delivery time down from up to 4 hours to 32 minutes. This enables the NHS to wait until the cancer patient has been tested and/or clinically examined for suitability of receiving medication, before confirming that the chemotherapy should be manufactured. Cancer patients are at high risk of being susceptible to infections due to their immunosuppressed status, and by reducing the time spent in the clinic waiting for the delivery, we can significantly reduce their Covid-19 infection risk. This will also turn the manufacturing of chemotherapy into a serial process rather than the parallel one it is today. Unfortunately, the latter results in delays to patients waiting for their treatment and expensive drugs being wasted on account of the patient not being well enough to receive them. Additionally, by providing an on-demand and reliable service using drones, the hospital can more readily (re)organise chemotherapy sessions at short notice. This is especially important for patients who are severely immunocompromised and need to adhere to strict treatment schedules for the best prognosis. This also saves both patients and clinical staff time. You are absolutely right - cancer does not stop, which is why we will be conducting a handful of night and weekend flights. We have also been asked by the NHS to extend our trial from 4 weeks to the 90 days permitted for a temporary airspace arrangement. This will give them the time necessary to gather the evidence required to determine the impact of unmanned aircraft transportation on patient outcomes. Besides the aviation learnings,

Apian's focus is on the healthcare system and gathering of critical evidence for how this impacts it and care pathways.

As you recognise in your update, we are following on from similar prior work conducted in the same area. Stakeholders, previously engaged as part of the prior CAA-approved process, are already familiar with the Isle of Wight NHS Trust's medical needs as well as our proposition's first principles and therefore remain supportive of our work.

Finally, concerning commercial purposes, this project is being conducted at cost, none of which will be borne by the NHS. Our goal is to improve patient outcomes and your feedback is integral in that it helps us improve the manner in which we communicate this. Thank you for it.

Response from Pilot C:

Thanks you for your e-mail and please add this final response to your stakeholder comments. My views have not changed and my objection remains.

I don't intend responding point by point but a few things need reiterating.

1. Truncated Engagement Timescale. On 1 Apr – the Thur before Easter - Skylift issued:
    a. Revised SoN
    b. Support letter from NHS IoW
    c. Revised e-mail to stakeholders – although not to me even though I had responded some time before.

    With an end-of engagement deadline of 16 Apr and the long Easter weekend immediately following publication of the 3 new documents means not much more than a week for stakeholders to consider a very significant change to the proposal. Is it any wonder I believe the engagement is cursory and the process hurried?
2. Neither the Letter of Support nor the Apian letter explain how the trial is designed to address the bottleneck which requires cancer drugs to be ordered by noon the day before they are needed, which is the key argument in the SoN.
3. Your revised Stakeholder Engagement e-mail states "We have, however, since been asked by the NHS to extend our trial from 4 weeks to the 90 days", but there is no explanation of the change in the Revised SoN. Moreover, the Letter of Support from the NHS makes no mention whatsoever of any request to extend the trial period. Of course, I would expect that Apian as a commercial organisation might wish to extend the trial but there is no evidence of any NHS request.

Please do not make any reply, but please note my objection remains unchanged.

Although Pilot C requested no further reply, Apian Ltd provided further statements for the Summary of Stakeholder Engagement:

Justification for the trial's extension from 1 to 3 months

- More time will enable the NHS to gather more evidence on the potential impact of drone delivery on the health outcomes of patients with cancer. For example, four weeks of flying may cover one round of chemotherapy treatment per patient whereas three months of flying may allow data for more rounds of treatment for the same patient to be captured and evaluated.
- The Isle of Wight NHS Trust is keen to carry out public and patient involvement research on the project for which a longer period of flying will be helpful.
- Apian received approval to use a UKRI grant to cover the costs of making full use of the 3 month period permitted by the TDA.

3-4 hour journey time

- XXXX, Lead Pharmacist for chemotherapy, Isle of Wight NHS Trust: "It can often take up to 3-4 hours for chemotherapy to arrive at the hospital. The chemotherapy packaging only guarantees cold chain compliance for up to 4 hours. Although GPS says the taxi journey from the pharmacy manufacturing unit to the hovercraft is 15 minutes, rush hour and delays in the taxi arriving result in it being longer. Similarly, the journey from the hovercraft to St Mary's Hospital involves a single lane road and is almost always congested, leading to longer delivery times than what GPS suggests. Delays in the hovercraft result in confusion with the taxis, all of which take up the valuable time of hospital staff".

Same day delivery

- By reducing the delivery time, same day delivery may be possible as chemotherapy ordered by 12pm can be manufactured by 3pm and flown to St Mary's before the end of departmental treatment hours.

Name	[redacted]
Job Title / Role	Chief Pilot
Company / Organisation	Babcock Onshore
E-mail address	[redacted]
Contact number	[redacted]

A meeting took place between Babcock Onshore and Skylift UAV Ltd on 24/03/21:

Thanks again for your time this morning. As discussed, please find attached an extract from the Skylift UAV Ltd Operations Manual covering TDA procedures. This is a generic set of procedures that was written to accommodate all emergency services operators that we engaged in a previous project. We would, of course, add any contact details and required procedures for the HEMS Desk to the appropriate section in the Ops Manual. As XXXX said in the meeting, we are willing to consider any suggestions you might have which will allow us all to operate safely in the airspace covered by this ACP.

Response from Babcock Onshore:

Ops Manual Extract looks good just need to tweak to reflect specifics. Can we agree a time each day that the phone number is manned because if it's not manned unless active this could cause us a concern if we are airborne when it goes active.

Reply from Skylift UAV Ltd:

We can certainly agree a time each day that the Pre-Flight Information number is manned – that will be something we will need to ask XXXX as it will be his remote pilots manning that number. I'll mention it to him and we can come to an agreement next time we meet.

Feedback from Babcock Onshore:

Babcock Onshore operate both the Hampshire Air Ambulance and Thames Valley Air Ambulance helicopters on behalf of both the HIOW and TVAA Charities.

As discussed with the RPA operator we do not object to the establishment of this TDA, as proposed, as long as a clear, and agreed, means of establishing the location of the RPA is introduced which includes a concrete method of ensuring that the RPA can be de-conflicted with our aircraft.

It is acknowledged that the RPA is transponder equipped and fitted with standard aviation lighting.

It is also understood that a AA/HEMS aircraft does not require permission to enter a TDA just that the pilot has to be content that he has sufficient information about the activity therein to allow him to penetrate the TDA safely.

We request that we are informed of the days intended RPA operations by 17:00hrs on the previous day via an email to our operations department which will then be forwarded to the duty pilots who operate in that area, including both Hampshire AA and Thames Valley AA.

We would also like it agreed that a dedicated contact number be established that is manned at a specific time prior to the RPA being airborne. This number should be contactable at short notice throughout the period that the vehicle is operating so that it can be used in the case of inflight re-tasking of the HEMS aircraft to ensure avoidance and also access to the two hospital landing sites involved. This should include an agreed means/direction/flight profile that the RPA will vacate a landing site due to the imminent arrival of a HEMS aircraft.

As proposed we would also request that the HEMS desk contact details (direct line) be added to the operators Operations Manual? This should include a clear protocol in regards to how operators are informed of RPA operations and also an agreed clear means on positively establishing any de-confliction requirements at short notice i.e. the aircraft is re-tasked in flight, contacts the HEMS desk who in turn contact the RPA operator to clear the hospital landing site, de-conflicting with the arriving HEMS aircraft as it departs.

Skylift UAV Ltd continued to work with Babcock Onshore to write a Letter of Agreement that would allow the Air Ambulance helicopters to access the TDA while being safely deconflicted from Skylift UAV Ltd operations.

HM Coastguard, Solent Airport

Name	[redacted]
Job Title / Role	Flight Operations Manager, UK Search and Rescue
Company / Organisation	Bristow Helicopters
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

Thank you for the email. I would welcome a call between yourself, the LOS Chief Pilot (cc'd) and myself to ensure adequate deconfliction and access to the TDA during SAROPs.

A meeting took place between Bristow Helicopters and Skylift UAV Ltd on 05/04/21 and the following summary of the meeting was provided by Bristow Helicopters:

A summary of today's call for XXXX and my actions from the call for XXXX.

We discussed the type of UAV, photo at link here https://www.britishdrone.com/

Able to be identified by SAR aircraft via TCAS, on digital map AIS and iPAD ACANs.

The trial is planned to commence in July, in line with AIRAC cycle (for TDAs). TDAs and a schedule of flights will be promulgated. Trial period circa 3 months instead of 1 month as per attached document. Main driver for trial is the time critical transport of chemotherapy drugs within a 4 hour window of 'shelf life' between Portsmouth QA hospital and St Mary's on the Isle of Wight.

The RPAS would operate between the helipads at each hospital and the operating base at Thorney Island.

The TDAs are low level, surface to max 850'agl over land, 450' above sea level over the water.

Whilst risk of air prox or collision can be mitigated by multiple layers of situational awareness tools, a major risk mitigation would be use of two way R/T between the RPAS pilot and other aircraft on Safety Com frequency or similar. Unfortunately, the Authority has not, as yet, permitted Flyby / Skylift to transmit on frequency, though they will be monitoring.

A further mitigation could be achieved by RPAS team being in phone contact with ARCC as the SAR tasking agency.

We discussed penetration of the TDA by SAR aircraft on a SAR task. A Letter of Agreement between Skylift/ Flyby Technology and Bristow would be the way to accommodate that. I suggested that you, XXXX, would be the most appropriate signatory to the letter for BHL, with me cc'd.

We discussed Aeronautical Rescue Control Centre, ARCC, as a means to provide deconfliction information if the SAR aircraft is airborne and tasked whilst the RPAS is airborne. Sensible POC at ARCC to discuss the concept would be XXXX, Controller.

We discussed that BHL might become involved in UAS operations from Lee on Solent in the summer, we can keep you advised if that plan goes ahead.

We'll await the first draft of the Letter of Agreement to permit penetration of the TDA by SAR helicopters.

Hopefully this is a reasonably accurate, though brief, summary of the conversation. XXXX, please correct any glaring inaccuracies.

Reply from Skylift UAV Ltd:

Thanks very much for providing the summary below. I've got a couple of minor corrections/additions:

- The UAV is fitted with a Mode S transponder
- TDA max vertical limit is 850' AMSL over land and 400' AMSL over water

As the starting point for a Letter of Agreement, I have attached an extract from the Skylift UAV Ops Manual covering their TDA procedures. These have been accepted by a number of emergency services operators already. There is a separate pre-flight information / communications section where we can add specific contact details for the ARCC, and I will contact XXXX this morning, thanks.

Beyond what is covered by the attached Skylift UAV TDA procedures, what else would you want to see in a Letter of Agreement that would allow you to penetrate the TDA and is permitted by your own procedures? I'm thinking worst-case scenario where contact cannot be made with Skylift on the Pre-Flight Information phone number. The Skylift remote pilots will maintain a listening watch on Safety Com, so a "blind" call can be made on that frequency. Although the remote pilots cannot reply, they can take appropriate action to deconflict. At the same time, if you can positively identify the UAV on TCAS, then does that provide a sufficient basis for further deconfliction? The track and height of the UAV is predictable in the absence of any external request as it will continue to follow the pre-programmed route within the TDA. As XXXX said, we're happy to consider anything reasonable to get the UAV out of your way.

Response from Bristow Helicopters:

Just to recap, and to keep XXXX in loop, we discussed on the phone this morning whether an alternative to the letter of agreement might be to aim to put the necessary information in the AIC that will form part of the ACP. We agreed that you will aim to speak with your contact at SARG to see what is in the art of the possible within an AIC, given the issues with Skylift gaining DAAIS status.

Reply from Skylift UAV Ltd:

I received an answer from my contact at SARG regarding alternatives to a letter of agreement: "…if your stakeholder engagement outlines an agreement of steps to notify the emergency services of the TDA and provides them with a robust method to access the airspace if they needed to, it would not necessarily need a LoA. It's really about the stakeholder being content. LoAs are used in many cases because they provide a signed agreement between both parties, but we are aware of some stakeholders not implementing LoAs because of the number of TDAs they deal with…in these cases, they often apply the same procedures for all TDAs."

If, as suggested, we put the necessary information in the AIC, would you please be able to confirm that Bristow Group is content with that? I propose something along the lines of the following in the AIC: “Within EG Dxxx, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.” We can add more to this as required to suit your level of comfort.

Response from Bristow Helicopters Chief Pilot:

From an operational perspective, I think that would work and I would be content - XXXX to confirm as Flight Ops postholder and primary risk holder.

At present, I cannot think of anything that needs to be added to your suggested wording.

Response from Bristow Helicopters Flight Operations Manager:

I concur with XXXX, happy.

Reply from Skylift UAV Ltd:

Thanks very much for your co-operation with this ACP. Please do not hesitate to get in touch if anything else comes to mind.

Although XXXX at the ARCC was contacted, no reply was received. However, contact details for the ARCC have been added to the Skylift UAV Operating Safety Case (OSC). In addition, the information that Bristow Helicopters requested to be in the AIC has been included as per section 9 above, and full procedures on TDA access are in the Skylift UAV OSC.

Isle of Wight Airport Sandown

Name	[redacted]
Job Title / Role	Manager
Company / Organisation	Isle of Wight Airport - Sandown
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

Dear Sirs,

I would like to have an urgent call with you as per your email.

Covid-19 has created a huge challenge to aviation in all sectors.

As a small airfield trying to survive in the current climate, we could do without further distractions or additional safety concerns.

We have already offered the resources available from Sandown Airport and it's access to a huge aviation network to the council.

Could you forward full details of the urgent request for help from the NHS you refer to?

We may well be able to help with this..

Reply from Skylift UAV Ltd:

Thanks for getting in touch. Please find attached the Statement of Need for this Airspace Change Proposal (also available on the Airspace Change Portal), which was written with the full cooperation of Isle of Wight NHS Trust.

I would be more than happy to have a call with you. Are you available today? I have a meeting between 1530 and 1630 but I am otherwise available.

No further response was received from Isle of Wight Airport Sandown.

Person D

Name	[redacted]
Job Title / Role	Private individual
Company / Organisation	N/A
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

I am generally opposed to TDA's or DA's for BVLOS drone operations. I believe that drones should be equipped with ADS-B and TCAS with built in collision avoidance logic before they should be allowed to operate in this way. This is a far more sustainable and practical solution than to litter the country with danger areas and inundate the CAA with airspace change requests. The UK already suffers some of the most complex airspace in the world. There is a current application for trials of technology that can operate BVLOS without the need for airspace restrictions and this should be supported.

I am concerned that organisations are using COVID-19 as an opportunity to drive through proposals that would otherwise warrant greater scrutiny. Whilst only a special kind of person would seek to deny cancer patients their chemotherapy drugs, it is important to ensure that the outcome is achieved with the minimum possible expense to the public purse and inconvenience to the general public. In this case, I think that the NHS business case should form an important part of the proposal and an understanding of the finances should be a matter of public concern. These factors should be taken into consideration by the CAA when forming an opinion. For example, does the cost of a drone outweigh the cost of training an NHS courier to drive a speed boat? If this proposal were for a less important purpose, surely it would be rejected? My concern is around setting a precedent for a "drone takeover" which in years to come will have serious implications for the wider aviation community and that is why these early applications require greater scrutiny.

Given the recent number of incidents investigated by the AAIB including some very serious incidents involving out of control heavy drones, I would also query whether adequate governance for drone assessment and approval is in place to allow heavy lifting drones to travel over any built up area where they could very easily cause serious injury in the event of catastrophic failure.

With regard to the proposed area itself, it strikes me that the tops of areas A & C are unnecessarily high and that a much more direct route could be taken with similar or less coverage of built up areas. I also note that, if implemented quickly, this area could directly conflict with a SERA.5005 exemption already issued by the CAA for an event with an RA(T). I am blissfully ignorant as to the order of priority of these different instruments but it is important to consider how infrequent events might interact with such a TDA. The Solent is after all an area of intense aerial activity.

Reply from Skylift UAV Ltd:

Thank you for getting in touch and for your feedback. We appreciate the inconvenience of the TDA, however; currently, we have no option but to operate in a TDA as BVLOS drones are not yet allowed to operate alongside manned aviation. Segregated airspace is the only option. Most of us come from a manned aviation background so we are aware of the imposition on local airspace users and have tried to make the TDA as small and VFR-friendly as possible. The routing is the most direct

available that avoids built-up areas and a bird sanctuary. The drone is equipped with both ADS-B and mode S transponder and the flight volume will be GeoFenced. Please refer to CAP 1915 for further information as to the CAA requirements for BVLOS drone operations.

We are engaging with HEMS, the National Police Air Service, HM Coastguard and the Thorney Island users to ensure our operations are compatible with their needs. Additionally, we are contacting other local users for their input and feedback.

With regards to the blocks of airspace, we have broken the route into 3 sections in order to be able to place the vertical upper limit as low as possible. In area B, over the water, it has a vertical limit of 400' AMSL which is below the limit of VFR minimum altitude of 500' over non-built-up areas. Areas A and C both have either higher terrain or obstacles which require the upper limit to be higher, as the flight rules require height and horizontal distance from an obstacle to be factored into minimum flight altitudes. However, with regards to VFR flight rules, these upper limits still remain below the lower limit of VFR flight rules (see SERA.5005) where possible and are therefore aimed at having minimum impact on general aviation users. The dimensions of the TDA are calculated based on the requirements for a flight volume, contingency volume and emergency buffer as set out by the CAA in CAP1915.

With regards to the cost-benefit analysis may I please direct you to the revised Statement of Need in the Airspace Change Portal? We appreciate your concern about the cost-benefit analysis, but it is not part of the ACP (Airspace Change Process) to justify the business case. The best I can offer is the above referral. The NHS are now at the proof-of-concept stage to see if using drones works for them in both a practical and financial sense. As all feedback from this consultation will be passed to the CAA and will be published on the Airspace Change Portal (with identity redacted) your concerns as well as the NHS's Statement of Need will form part of the CAA decision process.

The regulations on drone operations are constantly evolving. Some of the recent accidents were instrumental in tightening up the regulations in order to address the safety issues you mentioned. Accidents have occurred due to a lack of features on the drone to contain it within the flight volume or due to loss of C2 link. Our drone has a MTOM (maximum takeoff mass) of 25kg and as mentioned, has ADS-B, a mode S transponder and is GeoFenced. Additionally, it has a ballistic parachute, which operates automatically in case of total power failure. The route will be carefully checked for radio interference and there are redundant communications systems. All of this is detailed and submitted to the CAA in the OSC (Operating Safety Case) during the approval process. Skylift UAV are committed to maintaining the highest standards of aviation operations.

I hope this helps to clarify our efforts and to stem your concerns.

No further response was received from Person D.

Ministry of Defence - Defence Airspace and Air Traffic Management

Name	[redacted]
Job Title / Role	DAATM SO2 Airspace Ops
Company / Organisation	MOD
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

Please accept this feedback from Defence Airspace and Air Traffic Management (DAATM) which represents views from across the Ministry of Defence (MOD). The MOD wish to thank Skylift UAV Limited for the engagement on their ACP described in the title line.

The MOD are aware of the importance and nature of the task and are committed to help provide a workable solution for all airspace users. Whilst the MOD do not object to the proposal, we believe that there are potential flight safety implications and airspace user conflictions that require addressing with the proposal as it currently stands.

The MOD are aware that Skylift UAV Ltd have already commenced a dialogue with Baker Barracks on Thorney Island to use that location as a base for their UAV/RPA activity. Baker Barracks and two military helicopter landing sites (HLS) are located on Thorney Island, directly underneath the proposed TDA. Numerous MOD and civilian stakeholders utilise these and the immediate local area, including; Royal Navy Air Squadrons (helicopters), Special Forces Rotary Wing assets (helicopters), Joint Helicopter Command (Army and RAF helicopters), Lockheed Martin UAV/RPA flights, Thorney Island Microlight Club (who have already responded to your request for feedback) and Chichester and District Model Aero Club. There are also military exercises involving MOD stakeholders that take place, from, and in the area surrounding, Thorney Island.

The overriding requirement here would be for some form of 'pre-tactical' airspace deconfliction (i.e. well in advance of the 24hr NOTAM notice) so that all users are aware of each other's activity and can agree on times and days where conflicts are kept to a minimum. The MOD believe that the intensity of usage, up to 4 return flights per day during the working week and over the 90 day trial period will directly impact MOD operations if some form of deconfliction between users, or ability to access the TDA is not achieved.

In the interests of flexible use of airspace, the MOD believe that the TDAs should only be activated for the times required to conduct the return flights and not for the entire day period. This, combined with the ATD and ETA information sent to users, would be seen suitable mitigations for informing MOD airspace users of activation times at the tactical level (i.e. on the day of activation). As the TDA height limits are different for each section of the TDA, are there opportunities to allow other airspace users to utilise airspace below the level of flight of your RPA – either by some form of agreement or a change to the TDA dimensions?

Fleetlands is a local heliport (civil run but sponsored by the MOD) located near to TDA Area A (850ft AMSL) and with low cloud bases, would see operations to and from the east impacted. Some form of time deconfliction, access to the TDA or change in the level of the TDA would lessen this impact. Other suggestions have included relocating the TDA to the west of Thorney Island to lessen the impact on military operations in and out of the HLS; however, we understand that if this is where

your UAV will be based then this is not a viable option. Deconfliction of the TDA and military exercises will help mitigate against this.

Other military airspace users have expressed concerns about the funnelling of traffic (both GA and military) towards the Fleetlands/Lee-on-the-Solent gap when the TDA is active. This is especially pertinent with the increase in military helicopter traffic utilising routes in and out of the area to access tasks in the Portsmouth dockyard area and the Royal Navy assets found there.

There may be occasions where military aircraft require entry through the TDA in the interests of national security. This is highly unlikely but will be required at no-notice and is akin to how the emergency services and other Cat A flights will gain access (described in your proposal). Some form of rapid communication with the TDA, or UAV/RPA, operator would be required. Having relevant TDA contact information on the NOTAM is one way of achieving this if a radio frequency, or DAAIS are not available for other airspace users.

In summary, the MOD are keen to work with Skylift UAV Limited but believe further talks are required to discuss 'pre-tactical' and 'tactical' deconfliction of airspace for military exercises and other routine Thorney Island users, as well as potentially the TDA dimensions and access for wider airspace users. This will ensure that both operations can continue safely with the minimum of disruption.

Please do not hesitate to contact DAATM if you have any further questions or require MOD contacts to liaise with reference any of the content contained above.

Reply from Skylift UAV Ltd:

Please find below the Skylift UAV Ltd response to the MoD feedback that you have kindly provided. As you indicated in your feedback, discussions have been taking place both with yourself, with regard to the wider area affected by this ACP, and with XXXX (copied in), with regard to Baker Barracks on Thorney Island.

In the interests of flexible use of airspace, Skylift UAV will activate the TDAs for the minimum time necessary. However, it should be noted that this trial is at the behest of the NHS, so Skylift UAV must be responsive to their requirements. Pre-notification of TDA activation by NOTAM will take place at least 24 hours in advance but Skylift UAV will endeavour to provide as much notice as possible of their flying operations, especially to Baker Barracks.

Unfortunately, it is not possible to allow other airspace users to fly below the level of the RPA/TDA. However, to address the concern of Fleetlands (and other airspace users) regarding the upper limit of TDA A, Skylift UAV have re-examined this limit and can justify a reduction in the upper limit of TDA A to 750 FT AMSL.

A Pre Flight Notification telephone number will be published in the TDA activation NOTAM and will be manned from 30 minutes before until 30 minutes after any TDA activation period. Skylift UAV would welcome calls to that number in advance to negotiate deconflicted access to the TDAs where possible. Again, this should help with the concern raised by Fleetlands regarding operations to and from the east being impacted by low cloud bases. If access to the TDAs is required by military aircraft for no-notice national security requirements, this would be treated by Skylift UAV in the same way as access by emergency services aircraft. The Pre-Flight Information number should be called by appropriate operations personnel on the ground and the remote pilots will do everything they can to

quickly and safely stop RPA operations. The remote pilots will be monitoring SAFETYCOM (135.480 MHz) and there is ongoing discussion with the CAA to allow the RPA to have a call sign and therefore the ability for the remote pilots to speak to other aircraft.

The RPA is also fitted with ADS-B and a Mode S transponder. For situational awareness, ATD and ETA information can be sent to any airspace users that request it.

Specifically for Baker Barracks, the following is in progress or has been actioned:

- A local Flying Order Book (FOB) is being compiled by MoD staff to incorporate the agreed procedures below for all operators.
- For helicopter flights, Baker Barracks requires prior notification by 1200L the day prior to operations, so deconfliction can be arranged as part of that notification procedure.
- A 3-way letter of agreement is being drawn up between Skylift UAV, Thorney Island Microlight Club (TIMC) and Chichester and District Model Aero Club (CADMAC), utilising their existing procedures into which Skylift UAV will fit their operations. This will be copied to XXXX and, as per XXXX's e-mail that was copied to XXXX, will also require his approval of the Skylift UAV proposed route to/from the south. Please see the red line added to the attached Thorney Island ecological constraints - Skylift map.
- Southampton University / Windracers are not planning to operate at Thorney Island during the proposed Skylift UAV trial period. If that plan changes, they will need to arrange access with Baker Barracks anyway, and they have also agreed to contact Skylift UAV. Either a letter of agreement can be drawn up at that point or, if in place, they will comply with the procedures in the FOB.
- For any other military / industry partner RPA operations taking place, deconfliction will be agreed in advance or, if in place, will be in compliance with the FOB. Skylift UAV would plan to follow the procedures for departure and arrival as agreed with TIMC/CADMAC and remain within the microlight no-fly zone. If their aircraft is transiting the area then the route would comply with the amended ecological constraints map referred to above, at 500 FT AMSL. Skylift UAV would of course comply with any changes to these procedures required by the FOB.

Please note that the ecological constraint specific to the Chichester Harbour SSSI, requiring the UAV to overfly the SSSI at or above 500 FT AMSL, has meant that the upper limit of TDA B will have to be raised to 650 FT AMSL. TDA B has also been redrawn to accommodate the deconflicted and ecologically constrained route into and out of Thorney Island. I will send you both an updated copy of the TDA dimensions when they have been finalised. We are conducting engagement with Southampton Airport which has required some TDA redesign over the Isle of Wight and I anticipate that this will be completed on Friday (23/04/21).

I trust the above addresses the issues raised by the MoD with regard to both the wider area and specifically to Baker Barracks but please do let me know if you still have any concerns or if any corrections need to be made. I would also appreciate it if XXXX could let us know if he approves of the proposed route to/from the south as per the attached amended ecological constraints map.

Thanks again to both of you for your help and cooperation

Response from Baker Barracks reference approval of the proposed route to/from the south:

On behalf of the Head of Establishment, I approve the proposed route.

Response from MOD DAATM:

I believe this new information and further changes/mitigations do help to reduce the impact on military operations in the area of your TDA proposal. DAATM are content that all relevant MOD stakeholders have been informed and these stakeholders are able to communicate directly with you in the event that any issues arise during the period of TDA activation.

I will let XXXX reply on behalf of the Baker Barracks specifics.

We look forward to continuing the cooperation we have established and if you require anything else then please do not hesitate to contact me.

Response from Baker Barracks:

No immediate comments – please continue to keep me, XXXX and XXXX (cc'd) in the loop as your agreements with the site users mature.

National Grid Electricity Transmission UK

Name	[redacted]
Job Title / Role	Chief Helicopter Pilot
Company / Organisation	National Grid Electricity Transmission UK
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

The proposed route below does not affect the surveys of NGET powerlines by drone or helicopter (callsign GRID) however, may affect the survey routes of gas pipeline inspection or distribution network surveys such as ELECTRCITY or PIPELINE callsigns. It might be helpful if route activation used the CANP, and CADS notification systems in addition to the NOTAM system to provide additional warning to other airspace users (assuming the NOTAM system automatically populates the Altitude Angel System).

Reply from Skylift UAV Ltd:

Thanks very much for your feedback. XXXX provided us with contact details for other operators that inspect pipelines, etc., so we hope to receive feedback from them too. Skylift UAV are keen to take whatever action is necessary to notify their operations to other airspace users and to cause as little disruption as possible, so your suggestions are very welcome.

National Police Air Service

Name	[redacted]
Job Title / Role	Head of Flight Operations
Company / Organisation	National Police Air Service
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

I foresee no significant threat to our operations from this providing the dedicated phone number is promulgated on the NOTAM in order to facilitate easy contact should one of our aircraft need to operate within the TDA.

Reply from Skylift UAV Ltd:

I've just been checking through all the feedback we have received and it looks like we did not acknowledge your e-mail. Please accept my sincere apologies for this omission on our part. To address your feedback, the Pre-Flight Information telephone number will indeed be promulgated on the NOTAM and it will be manned from 30 minutes before until 30 minutes after the notified TDA activation period. Requests for access to the TDAs should be made by calling this number. The remote pilots will notify the caller of the location of the RPA and will do everything possible to get the aircraft out of the way of the emergency services aircraft quickly and safely. In addition, please note that the RPA is equipped with ADS-B and a Mode S transponder, so it should appear on ACANS and TCAS.

Natural England

Name	[redacted]
Job Title / Role	Conservation Delivery Team
Company / Organisation	Sussex and Kent Team, Natural England
E-mail address	[redacted]
Contact number	[redacted]

Natural England were engaged via the stakeholder engagement with Baker Barracks, Thorney Island and provided the following information:

I am getting in touch from Natural England regarding the proposal for the trial of drone flying to transport chemotherapy medicines along Chichester Harbour.

I understand you have been in conversations with XXXX from the MOD to get an idea of the feasibility for the project in terms of any constraints.

In the email to you, XXXX highlighted ecological constraints on the proposed route to fly drones. As XXXX is on leave until early May, she has asked that I could advise on the details of the proposal.

Environment Sensitivity of the area

As XXXX has already touched upon, the proposed route would be through areas with statutory conservation designations including Chichester Harbour Site of Special Scientific Interest, Chichester and Langstone Harbours Special Protection Area and RAMSAR.

These statutory conservation designations are in place to protect the areas from activities which may impact the legally notified biodiversity and geodiversity features that the sites are designated to safeguard. Activities that could impact the protected features require Natural England's SSSI permission.

Environmental features that could be disturbed from the proposal

In terms of what features the activity could impact, the focus is solely on wintering wildfowl and waders and breeding birds.

The potential pathway impact from the proposal is disturbance to wintering wildfowl and waders and breeding. This could result in behavioural change of birds, nest disruption to breeding birds or general flushing of birds away from feeding grounds and reluctance to revisit these areas.

In terms of sensitivity, the most sensitive areas are areas of marine mud and sediment in Chichester Harbour exposed at high tide. These areas which are used as bird roosts have been mapped out and I have copied this into the email blow.

Natural England also does have standing advice to offer to authorities proposing the flying of drones over protected sites.

Natural England's advice

In terms of the advice Natural England can provide, we would advise that the flying of drones avoids periods one hour either side of high tide. This is because at high tide, the areas available for feeding are compressed and the likelihood and scale of disturbance is likely to be higher during this period.

Drones should not fly vertically or horizontally within a 150 metre radius of known nesting, roosting or feeding birds. This is applicable for drones described in the attached document. Drones larger than those described in the attached guidance may require more stringent distances.

Drones should follow a straight as possible route and avoid any sudden manoeuvres as this could result in disturbance.

Some monitoring through observation of the drone flying should be undertaken to check that the project is not disturbing any interest features of the protected sites.

I hope this helps in putting together a notice of proposal this project.

Reply from Skylift UAV Ltd:

As XXXX pointed out in his e-mail below, I am managing the airspace change proposal (ACP-2021-002) on behalf of Skylift UAV Ltd. Thanks very much to XXXX for the information provided in his e-mail and attachments. Having reviewed this information, Skylift UAV would like to propose the following:

1. Their route will not overfly any of the roosting sites marked on the diagram that XXXX included in his e-mail.
2. The portion of the route that overflies the Langstone Harbour bird sanctuary will be flown at an altitude above mean sea level (AMSL) of at least 180 m (approx. 600 FT).

3. The portion of the route that overflies the remainder of Chichester Harbour will be flown at an altitude AMSL of at least 150 m (approx. 500 FT).
4. The unmanned aircraft will follow as straight a route as possible and will not make any sudden manoeuvres, other than for safety of flight reasons.
5. Unfortunately, Skylift UAV are unable to operate to tide times as the intention is to provide an on-demand service to the NHS.
6. Skylift UAV are happy to help facilitate monitoring through observation of the unmanned aircraft if you can tell them how they can do that.
7. Specific to Thorney Island, and we're not sure who can address this in XXXX's absence, please see the attached files Thorney Island ecological constraints - Skylift and Skylift - TIMC flying arrangements – proposed. The unmanned aircraft will be based at Baker Barracks on Thorney Island so will need to take-off and land there on occasion, rather than transit through the area. Skylift UAV have deconflicted operations with the Thorney Island Microlight Club (TIMC), with TIMC operating generally to the southeast of the airfield and Skylift UAV operating generally to the northwest. The arrival and departure route to the northwest as per the ecological constraints map does not present a problem: the aircraft can descend from 500 FT once it reaches the coast of Thorney Island on arrival and it can climb to 500 FT by the time it reaches the coast on departure. For arrivals from and departures to the south, Skylift UAV propose routing via Marker Point (just above the tip of the red arrow on the ecological constraints map): the aircraft can descend from 500 FT once it reaches Marker Point on arrival and it can climb to 500 FT by the time it reaches Marker Point on departure. The route as depicted can be flown very accurately as the navigation system is capable of less than 1 m accuracy.

Can I please therefore confirm the following:

1. From XXXX's point of view that items 1 to 6 above are acceptable to Natural England for the UAV project to proceed?
2. From XXXX's, or an appropriate representative's, point of view that the alternative routing in red on the ecological constraints map is acceptable for the reasons detailed in item 7 above?

Response from Natural England:

The advise that UAV's are not flown at hightide is an extra contingency measures to further safeguard from disturbance to birds.

If as you say, flights will remain above 150 meters and stick to the guidance we published for authorities, then Natural England would be satisfied from a protected sites point of view, that the proposal would not compromise any of the conservation objectives for Chichester Harbour SSSI, Chichester and Langstone Harbours Special Protection Area and RAMSAR.

Once all has been agreed with the MOD, the information of the proposal will need to be put into a notice to be considered for SSSI consent. This can be done using our own (attached) template or one of your choosing.

If you wish to understand more about the conservation designations in place over Chichester Harbour, you can use our Designated Sites Viewer and read the citation to understand more about the site (link below).

https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1003245&SiteName=chichester&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

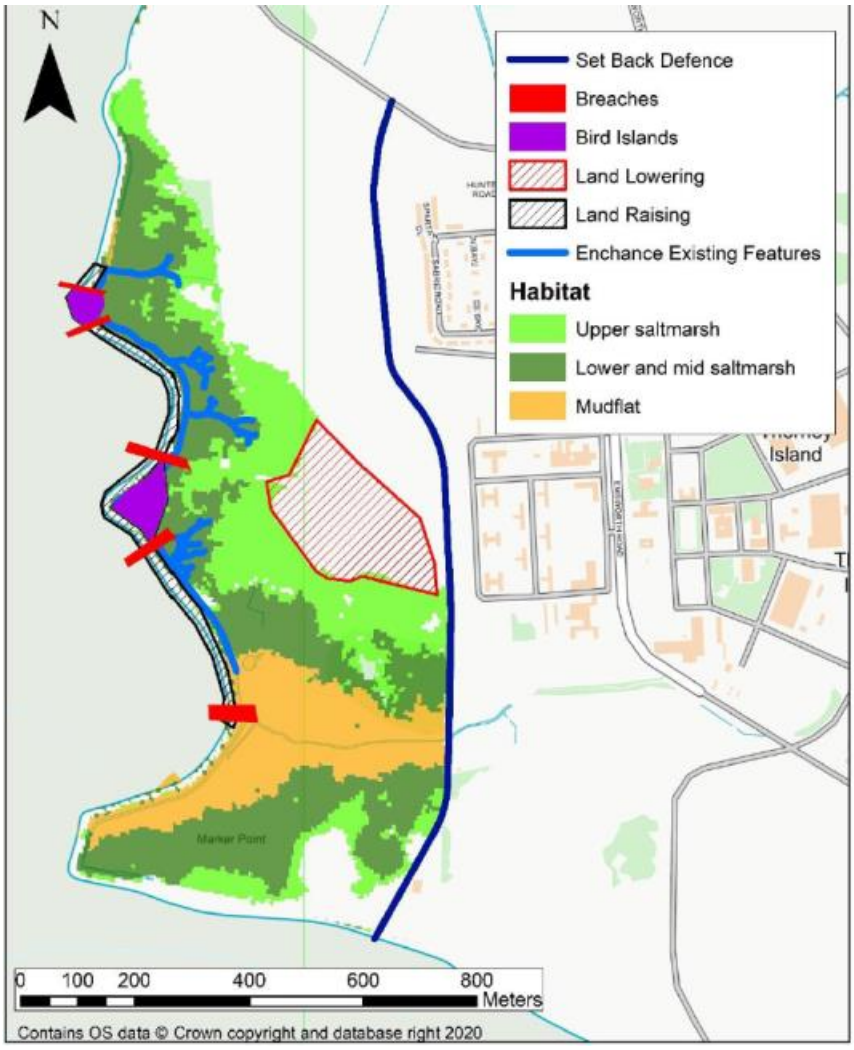
Skylift UAV continued to work with Natural England to provide a notice to be considered for SSSI consent.

Response from Defence Infrastructure Organisation Environmental Support and Compliance Team

Dear all,

I am XXXX's line manager. Ecologically, I think the route over Marker Point is fine for the trial. However you will of course need formal approval from XXXX.

In the longer term we may need to look at monitoring data and whether there may be disturbance to birds using the west of Thorney Island following the 'Project Marker' proposed coastal realignment (an example option is below):



For XXXX, an additional thought – as the activity is on behalf of the NHS, should it be considered under s28H SSSI Assent processes (rather than Consent), with Flyby / Skylift acting as NHS's agent?

The alternative routing requested by Skylift UAV was approved by XXXX (see the Stakeholder response from Ministry of Defence - Defence Airspace and Air Traffic Management above).

Person E

Name	[redacted]
Job Title / Role	Private individual
Company / Organisation	N/A
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

Please find following my reasons for objecting to ACP-2021-002, I did try to use your feedback form, but it appears to be a .pdf document which I have no means of editing/filling in.

1. There have been many of these of these “transportation” trails already, effectivly transporting goods on unproven UAVs not equipped with detect and avoid systems in more and more TDAs disrupting other airspace users and creating a danger to the general public for no real benefit except gaining Government grants to continue research. All further trials should concentrate on a certification standard for the drones and a certified autonomous Detect and Avoid system, so they can be integrated with all other class G users, these should be done in existing remote danger areas specifically organised for drone trials such as Salisbury Plane and Aberporth. Once a drone is certified as meeting an approved safety standard with an approved certified detect and avoid system such as those mandated by the FAA, then BVLOS operations below 400ft should be permitted in class G airspace without the need for TDAs or any other segregated airspace such as TMZs or so called class L airspace proposed by some (effectivly a more restircted TMZ) at that time this sort of trial can go ahead.

2. The reasons for the trial are spurious, the reason for the trial is to access Government grant money and continue research with the hope of lucrative commercial contracts. While there is a "free" service (courtesy of Government Grants) UAV companies are able to convince NHS to use their service and then use "Covid" as a good sympathy generator to try to get through their proposals. This proposal mentions Ferry times and some time saved by the drone over using the ferry, but there is also a perfectly adequate hovercraft service that you fail to mention and in emergency commercial helicopter operators in the area that could be called upon, or even speedboats. All easier to organise and less disruptive and more reliable. In a real world commercial operation, a certified UAV wouldnt be a viable cost effective solution compared to the other options, so what is the point of this disruptive trial, except to gain the Government grant money.

3. The ceiling of TDA is unnecessarily high at 850ft because of the wide corridor encompassing Portsdown hill to the north of the hospital, you should make the corridor narrower, so the steep hill is excluded, then the ceiling could be more like 4-500ft. It would be even better is the ceilings were done as AGL (above ground level), rather than AMSL (above mean sea level), thus with the drones prohibited from flying above 400ft AGL, if would be safe for any other airspace user to be at 500ftAGL, rather than an AMSL ceiling based on a hill some distance away.

4. The route goes over Thorney Island active airfield, which needs to be avoided unless there is an agreement to allow the drones to use it in place and which should not disrupt current users of the airfield.

5. There is no DACS, so the airspace becomes unusable for the whole time it is NOTAMED as active, even though the operation is only a fraction of this time. You need to employ an ACTO to provide

this, or delegate it to Solent radar, who would then need exact information on the drone's position and flight plan. All part of the cost of BVLOS drone operation if you don't have a certified detect and avoid and need segregated airspace,

6. I also question how this "public transport" cargo operation is legal? If I had a NPPL and wanted to offer a free semi scheduled, on demand cargo courier service in my SSDR autogyro, operating between two areas of built up area would I be allowed to??

No! I'd have to have a CPL, a certified aircraft and an AOC! so I fail to understand how the CAA can approve this operation, negligence or just cronyism?

In conclusion, the BVLOS UAV operations need to start at the beginning, go to a current danger area suitable for drone operation,. get the UAV certified with a certified autonomous detect and avoid system, then BVLOS operations should be able to be carried out in class G airspace below 400ft without restriction, then this sort of commercial trail can start.

Reply from Skylift UAV Ltd:

Thanks very much for your feedback. This will be included in full in the stakeholder engagement report that will be provided to the CAA at the end of the engagement period. You have raised a number of issues that appear to be directed towards the CAA, which Skylift UAV are unable to address, but I note that you have copied your feedback to Airspace Policy at the CAA. Neither will Skylift UAV address your interpretation of the reasons for the trial, as you are entitled to your opinion. However, I will attempt to address the other concerns that you have raised.

The TDA encompasses Ports Down due to the requirements for contingency and emergency buffers as per CAP 1915. Following feedback and discussions with other stakeholders, Skylift UAV are looking at reducing the upper limit of TDA A to 750 FT AMSL. Even so, the ridge is still approximately 325 FT AMSL in the vicinity of the route, meaning that VFR traffic should be at least above 825 FT AMSL in that area. The UAV is usually flown at less than 400 FT AGL and Skylift UAV would prefer to specify TDA vertical limits as AGL. However, the CAA require TDA vertical limits to be specified as AMSL and the highest ground en route therefore has to be taken into consideration when specifying the upper limit. This is one of the reasons why the TDA has been split into sections, so that those covering lower ground can have a reduced upper limit.

The route goes over Thorney Island as the unmanned aircraft will be based there. To that end, Skylift UAV have engaged with all the users of the airfield to deconflict flying operations with the express intent of allowing everyone to continue flying, even when the TDA is active.

Pre-Flight Information for the TDA will be provided by Skylift UAV on a phone number that will be manned from 30 minutes before until 30 minutes after the notified activation period. Any airspace user is welcome to call that number and Skylift UAV will arrange deconflicted access to the TDAs if at all possible.

No further response was received from Person E.

Sky Surfing Club

Name	[redacted]
Job Title / Role	Chairman
Company / Organisation	Sky Surfing Club
E-mail address	[redacted]
Contact number	[redacted]

Feedback:

We have received notification via the British Hang Gliding and Paragliding Association (BHPA) of the proposed TDA to facilitate BVLOS drone operations between Portsmouth and the Isle of Wight (IOW). Having read the documentation I am aware that we (the Sky Surfing Club managing hang gliding and paragliding in the South East Hampshire and West Sussex area) would constitute fellow airspace users who will potentially be affected by the proposed TDA.

The club flies from a number of sites in the area, including Harting Down, the chosen site depending on wind direction. The aim of many pilots is to fly cross country (XC) when the thermal conditions allow. Routes from Harting Down in a N to NE wind direction could take pilots down to Hayling Island and Southsea. Such flights could be affected by the proposed TDA.

We also have members of our club who fly Powered Paragliders in the area of the proposed TDA.

It should be noted that the majority of the hang gliding and paragliding community does not carry transponders or radios, although a few carry ADS-B or FLARM devices.

Questions:

1. Will the UAV be able to detect FLARM?

It seems curious that the trial will "avoid overflight of inhabited areas where possible" (quote from the email to stakeholders), but the route chosen overflies the heavily populated areas of East Cosham, Drayton, Farlington, Langstone and the Eastern tip of Hayling Island. It would appear that the total area of built up land overflown would be minimised if the UAV route were across the old tip near Port Solent, down the middle of Portsmouth Harbour and across the tip of Gosport. This route would have no impact on our operations and would also avoid the Bird Sanctuary at Farlington Marshes. It should be noted that the BVLOS drone trials about to start from Goodwood Airfield (ACP-2020-82) rigorously avoids overflying built up and public areas for reasons of safety.

2. Would it not be possible to route down Portsmouth Harbour?

3. Why do these trials appear to be less concerned with the safety precautions than the Goodwood UAS trials have implemented (i.e. not overflying built up & public areas where possible)?

Reply from Skylift UAV Ltd:

Thanks very much for your feedback. This will be included in full in the stakeholder engagement report that will be provided to the CAA at the end of the engagement period. To answer your questions:

1. The UAV will not be able to detect FLARM.

2. There are several sources used to plan the route of the UAV. Although it appears on an aeronautical chart that the route overflies inhabited areas, Skylift UAV have been meticulous to avoid direct overflight of any habitation, utilising instead overflight of parkland and fields. The main reason why the UAV routes via Thorney Island is because the aircraft will be based there, along with the flight crew and ground control station. Rather than cause potential inconvenience to emergency services aircraft access, the UAV will only set down and pick up at the hospital helipads. If the UAV needs to have a battery changed, or once the flying task is completed, it will land at Baker Barracks on Thorney Island.
3. Skylift UAV can assure you that this trial is in no way less concerned with safety precautions than any other trial. The trial is subject to the same operating safety case requirements as any other UAV operation submitted for approval to the CAA (including the Goodwood trial).

Specifically with regard to your club, the senior management of Skylift UAV, including the managing director, come from a manned aviation background and the last thing they wish to do is disrupt anyone else's flying activity. Unfortunately, current regulations require the establishment of a TDA to segregate UAV operations. Skylift UAV have attempted to keep the size of the TDAs as small as possible while complying with the UAV safety rules for contingency and emergency buffers (please see CAP 1915). Following feedback and discussions with other stakeholders, they are looking at reducing the upper limit of TDA A to 750 FT AMSL. In addition, as per the original e-mail to stakeholders, the TDAs will be notified as active at least 24 hours in advance but they will only be activated for the minimum time required. A Pre-Flight Information phone number will be manned from 30 minutes before until 30 minutes after any activation period and Skylift UAV would welcome calls to that number in advance to negotiate deconflicted access to the TDAs where possible.

I trust the above answers your questions.

Response from Sky Surfing Club:

Thank you for your quick response to our questions. We will be following the development of this project with interest, so we will be grateful if you could keep us informed as it develops and you reach each stage. Thank you.

Southampton Airport

Name	[redacted]
Job Title / Role	Airside Assurance Manager
Company / Organisation	Southampton Airport
E-mail address	[redacted]
Contact number	[redacted]

Initial e-mail exchange with NATS, Southampton Airport, copied to the Airside Assurance Manager:

With reference to Airspace Change Proposal ACP-2021-002 BVLOS UAS operations - Portsmouth to Isle of Wight, please find attached the formal engagement material which is being sent out to all stakeholders today. This follows on from our assessment meeting with the CAA earlier in the week where they determined that this project is in scope of the airspace change process and that a Temporary Danger Area (TDA) will be required. As previously discussed, we value your engagement, particularly with reference to the CAA's Special Use Airspace Safety Buffer Policy and the proximity of our TDA to the Solent CTA. I have attached a feedback form but we would be happy to address your requirements to comment on the ACP in another manner if that is more convenient. Please feel free to give me call if necessary.

Response from NATS, Southampton Airport:

A formal response will be required from Southampton International Airport Ltd and I have copied in XXXX who will be able to do that. For my understanding, in relation to the CAA buffer I understand from reading the policy you are required to aim for 3NM and 500 feet from the Solent CTA and Southampton CTR? Can you confirm that the TDA A,B and C are at least 3NM from the Solent CTA and Southampton CTR? I don't have software at home that can work this out.

Reply from Skylift UAV Ltd:

Our understanding is that we are required to aim for 3 NM due to the aircraft speed (Safety Buffer Policy, paragraph 3.2) and/or 2000 ft (Safety Buffer Policy, paragraph 2.6b) from CTAs and CTRs. (I understand that the 3 NM and 500 ft you refer to apply to Temporary Reserved Areas, not Temporary Danger Areas.) Under paragraph 3, Policy Dispensations, we understand that suitable mitigation would be use of the internal safety buffers that we are required to implement in accordance with CAP 1915.

I can confirm the following:

- TDA A, B and C are all more than 3 NM from the Southampton CTR
- TDA A is approximately 2 NM from the portion of the Solent CTA to the east of Southampton Airport. However, the vertical limit of TDA A is 850 ft AMSL and the base of that portion of the CTA is 3000 ft.
- TDA C is approximately 1.25 NM from the portion of the Solent CTA to the southwest of Southampton Airport. The vertical limit of TDA C is 750 ft AMSL and the base of that portion of the CTA is 2000 ft so this is the area where we need to look at policy dispensation, please.

Please don't hesitate to call me or set up a meeting if you and/or XXXX wish to discuss this further.

Feedback from Southampton Airport provided by the Airside Assurance Manager:

> Southampton International Airport cannot support this ACP with the current parameters of the 3NM/2000ft buffer zone required by the CAA.
> The buffer zone required for TDA C would encroach into Solent CTA 2 which has a base of 2000 ft.
> Another consideration would be the impact on G.A. in an already constricted area. Further airspace restrictions may increase the risk of airspace infringement and affect the level of aviation noise which is already an issue in the area.

A meeting was held with Southampton Airport and NATS Southampton on 23/04/21 to discuss the above feedback. It was agreed that Skylift UAV Ltd would move the relevant portion of the proposed TDA to the east so that its boundary is at least 3NM from the Solent CTA 2:

Thanks very much for your feedback and for your time today, along with XXXX and XXXX. Skylift UAV totally understand the reasons why you cannot support the original design of the proposed TDAs due to the CAA safety buffer policy and the proximity of the TDA to Solent CTA 2. To that end, as discussed, Skylift UAV have moved the relevant portion of the TDA to the east, as per the attached document, so that it is at least 3 NM from Solent CTA 2. I also said in the meeting that Skylift UAV would examine the possibility of reducing the upper limit of that portion of the TDA but, unfortunately, on close inspection of the terrain, the upper limit must remain at 750' AMSL.

I trust that this redesign does not cause any issues for Southampton Airport but please do not hesitate to get back to me if you wish to discuss the proposal further.

Response from Southampton Airport:

The redesign to have the relevant portion of the TDA including buffer moved to the East of CTA 2 means that the airport has no issues with the revised ACP.

We hope the trial goes well and will monitor any influence the TDA has on the behaviour on G.A. traffic in the area and provide feedback on any issues that occurred.

Should you need anything further from the airport or our NATS team please contact me.

Thorney Island Microlight Club

Name	[redacted]
Job Title / Role	Secretary
Company / Organisation	Thorney Island Microlight Club
E-mail address	[redacted]
Contact number	[redacted]

Initial contact with Thorney Island Microlight Club (TIMC) was through Pilot B (please see Stakeholder Response for Pilot B above). A meeting was held between Pilot B, TIMC Secretary and Skylift UAV on 31/03/21:

Thanks again for your time this morning – XXXX and I thought it was a very constructive meeting. Please find listed below notes and actions arising from the meeting. Please also let me know if there are any omissions or errors.

1. Thorney Island Microlight Club (TIMC) operates prior to 0730 local Mon-Fri, after 1730 local Mon-Thu, after 1230 local Fri, and all day at weekends. TIMC operates from the NE/SW runway, south of the area used for horses. Most aircraft are radio-equipped and use the SAFETYCOM frequency (135.480 MHz). Very few aircraft are fitted with electronic conspicuity devices. While TIMC and Skylift UAV operations will largely be deconflicted by time, there will be occasions when both organisations are flying at the same time. To that end, appropriate deconfliction procedures will be put in place and a letter of agreement will be drawn up. To start the process of agreeing deconfliction procedures, TIMC will provide Skylift UAV with current circuit procedures, traffic patterns, local flying areas, etc. Action: XXXX to send XXXX details of relevant TIMC operating procedures
2. As a member of the British Microlight Aircraft Association's (BMAA) Airspace Team, XXXX expressed concern that the airspace change process did not allow for sufficiently targeted engagement with local airspace users. Skylift UAV had previously provided XXXX with a list of stakeholders that have been engaged so far. XXXX will review that list and provide further relevant contacts to Skylift UAV. Action: XXXX to send XXXX contact details of other relevant stakeholders
3. XXXX mentioned that the TDA would be active for up to 3 months. XXXX questioned this as the Statement of Need specified a 4-week trial. XXXX's understanding was that the NHS had asked for additional activity to take place during the period of availability of the TDA. XXXX pointed out that this would need to be clarified in the information that was being provided to stakeholders. Action: Skylift UAV to clarify the period of time for which the TDA would be required and update the airspace change portal and engagement material as necessary

Response from TIMC:

Many thanks for this useful summary of our meeting.

I confirm your understanding of TIMC operations is almost right, with the following corrections:

1. All microlights are required to be radio equipped

2. We also have use of the E/W runway at weekends

TIMC also provided the following feedback:

<u>Thorney Island Microlight Club response to ACP-2021-002</u>

Thorney Island Microlight Club (TIMC) has proactively engaged with Skylift UAV Limited on this ACP, having not been previously identified as a stakeholder for formal engagement. It is disappointing that the CAA do not seem to play any part in stakeholder engagement for these proposals, relying instead on the sponsor of the proposal to produce their own lists. This is despite the fact that Thorney Island Microlight Club was also one of several stakeholders missed from initial engagement from the almost adjacent Goodwood TDA for BVLOS drone operation. If the CAA is responsible for management of the ACP process, we would also expect them to play a more proactive and questioning role when reviewing stakeholder engagement plans.

As a result of engagement with Skylift UAV, a Letter of Agreement (LoA) is in progress to allow interoperability and deconfliction of microlight and UAV activity on Thorney Island. Without this LoA TIMC would have to close down for the entire period of this TDA (apparently now 90 days rather than the 4 weeks in the original ACP). Providing this LoA is finalised and accepted by the CAA as a condition of the TDA TIMC does not have any formal objection to establishment of the TDA.

Skylift UAV Ltd continued to work with TIMC to write a 3-way Letter of Agreement that would allow both TIMC and CADMAC (see Stakeholder Response for Chichester and District Model Aero Club above) to continue to operate while being safely deconflicted from Skylift UAV Ltd operations.